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ABSTRACT

A study of West Virginia elementary schools examined why similar types of elementary students differ greatly in academic achievement. In the first phase of the study, a comparison of 33 high- and 33 low-achieving elementary schools in West Virginia found that low-achieving schools had 2.5 times more low-income students than high-achieving schools, and had teachers with less education and experience. The study's second phase compared low-achieving and high-achieving schools in a pair of rural schools with 65 percent needy students, a pair of rural schools with 87 percent needy students, and a triad of nonrural schools with less than 16 percent needy students. Data collection included observation in the seven schools; unstructured interviews with 50 parents, teachers, and administrators; and surveys of 670 students, 82 teachers, 632 parents, and 7 administrators. Data revealed that within each pair or triad, schools provided their students with dissimilar opportunities for achievement and success. Effective schools were characterized by high student achievement irrespective of socioeconomic status or parent involvement; low teacher turnover; faculty teamwork; high staff morale and accountability; teachers with high levels of education, experience, and commitment; strong teacher belief that children can achieve; infrequent student arguments; strong student pride and respect; student services and programs to offset effects of poverty; strong instructional leadership; and a supportive principal. Lower-achieving schools tended to display traits that are polar opposites of those above. Recommendations are offered for school improvement. Includes 51 data tables and a glossary. Appendices provide additional data on school climate scales. (SV)

ED 398 004

ACHIEVING DESPITE ADVERSITY

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ACHIEVING DESPITE ADVERSITY

Why are some schools successful in spite of the obstacles they face?

A Study of the Characteristics of Effective and
Less Effective Elementary Schools in West Virginia
Using Qualitative and Quantitative Methods

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There are three groups of individuals that deserve special recognition for their role in this research project.

The first group is the Research Review Committee of the West Virginia Education Fund's Education Policy Research Institute. The members of this group deserve high praise for their commitment to education in West Virginia, their desire to ask questions and find answers and for their active support and guidance in the process of seeking those answers. The concept for this study was proposed by that group and the members remained active throughout the entire process.

The second group is comprised of the teachers and administrators of the schools involved in this research project. A tremendous "thank you" for each one's generous cooperation and contribution. Without these "unsung heroes" this study would not have been possible.

The third group consists of Drs. Elizabeth Koball (Virginia Polytechnic Institute and State University), Merrill Meehan (Appalachia Educational Laboratory), and Alan DeYoung (University of Kentucky). All three were instrumental in planning the technical aspects of the study. Dr. DeYoung also conducted the interviews in each of the schools and Dr. Koball assisted with the analyses of the interview and survey data.

A tremendous "thank you" also goes to Paul Jenkins, President of the Claude Worthington Benedum Foundation, for traveling from Pittsburgh to attend meetings and being an active participant in the research process; to Barbara Joseph for her excellent work as editor and publication specialist; and to Vivian Owens, Executive Director of the West Virginia Education Fund, for her active involvement and support.

This research project has taken approximately two years to complete. Only individuals who were deeply committed to seeking answers to complex questions would engage in such a long and complicated project. The West Virginia Education Fund, the Benedum Foundation and the Research Review Committee are to be commended for their quest beyond the simple answers.

Mary F. Hughes, Ph.D.

Executive Summary

In the course of this study, we have sought to determine why similar types of West Virginia elementary students are achieving at very different academic levels. Some high-achieving schools are producing successful students, despite extreme poverty and dysfunctional home environments. How?

In other schools, students with similar demographic and socioeconomic backgrounds are clearly not achieving to this level. Why?

A majority of the elementary students who participated in this research project indicated that school is important to them and they want to do well. Unfortunately, the results of this study present compelling evidence that, despite the students' eagerness to learn, many parents, teachers and school administrators do not share their positive outlook, nor do all of their schools possess the characteristics which this study has identified with high student achievement.

In the first phase of the study, a comparison of 33 high and 33 low-achieving elementary schools in West Virginia found that the lowest-achieving schools had 2.5 times more students receiving free and reduced-price lunch as did the highest achieving schools, as well as teachers with lower education levels and less experience. Throughout this study the term "needy" will be used to describe the percentage of free and reduced-price lunch participants.

The second phase of the study focused on three pairs of elementary schools, each with similar demographic and socioeconomic characteristics. In each pair, one school consistently produces higher levels of student achievement than the other. The highest-achieving school in the state was also included in the study for comparative purposes.

In one of the pairs, both schools had approximately 65 percent needy students. In another pair, both schools had 87 percent needy students. The final contrast offered a comparison of three schools with low (less than 16 percent) populations of needy students.

In each of the three pairings, although the students were strikingly similar in socioeconomic profile, the research data indicated that their schools had provided them with an alarmingly dissimilar opportunity for achievement and success.

In total, seven elementary schools located in different parts of the state were visited and observed. Four schools were located in areas termed "rural;" the other three were in areas designated as "nonrural."

Fifty parents, teachers and administrators participated in unstructured interviews, in an effort to distinguish factors underlying achievement differences among the schools. In addition, 670 students, 82 teachers, 632 parents and seven administrators or central office personnel responded to an effective schools survey, designed to assess school-wide emphasis on student achievement; the relationship between student effort and achievement; staff morale, job commitment and satisfaction and school-community relations.

Findings and Discussion

The analysis of the survey and interview data identified considerable differences between the high and low-achieving rural schools.

The rural, low-achieving schools had higher faculty turnover, teachers with lower education levels, less experience, fewer years of teaching in the present building and lower faculty morale than the rural, higher-achieving schools. Over the years, these low-achieving schools have been perceived as places where new teachers were sent until they could build up enough seniority to "bid out," or apply for transfer, to another location. They are often called "drive-in" schools because some teachers commute from homes located as much as an hour away; these teachers are not perceived as members of the community in which they teach.

In the rural, high-achieving schools, teachers wanted to be in the schools, faculty turnover was low, continuity of instructional programs was present and there was evidence of the faculty working together as a team over time.

While the detrimental effects of poverty on student learning were present in both the high and low-achieving rural schools, the difference in academic achievement appeared to be in the attitude of the teachers, low faculty turnover, continuity of instructional programs, an identified instructional leader and having available services and programs for students in need.

In the three non-rural schools in this study, teacher turnover was low, teacher education level and years of experience were high and enrichment programs and field trips were in place or activated to enhance student learning and experiences.

In all four rural elementary schools, the levels of parent education, parent involvement and parent perceptions of the school were low, even in the high-achieving rural schools. The opposite was recorded for the non-rural elementary schools, which shared high parent education, high parent involvement and high positive parent perceptions of the school.

The students' responses across the diverse environments in this study indicate that even though the schools and communities are different, the relative perceptions of a majority of the students are about the same concerning school and work standards, expectations for a high performance level by the school and the desire to do well in school. One of the many interesting findings indicated that the responding students from the two highest-achieving rural schools had the highest scores on the motivation scale of all the students in the study, which measures the student's motivation to attend school and the importance he or she attaches to school.

Conclusions

Are there characteristics which distinguish effective elementary schools in West Virginia?

An analysis of the survey and interview data identified the following characteristics which are shared among the effective elementary schools in this research project:

- high student achievement, irrespective of the percentage of needy students, parents' education level, parents' income level or amount of parent involvement;
- low teacher turnover, combined with a stable faculty that exhibits teamwork and the ability to set common goals and coordinate the instructional program;
- high staff morale, job satisfaction and strong teacher accountability;
- teachers with a high level of education and experience and commitment to the school and the students;
- a strong and determined attitude among teachers that children can and will achieve;
- teachers who identify and address individual student needs;
- infrequent student arguments, strong student pride in the school, high levels of student respect for the teachers and, in turn, students feeling that they are respected;
- high student motivation in rural, high poverty areas;
- high to moderately high attention paid to the school by the central office;
- availability of student services to offset the detrimental effects of poverty; or enrichment programs such as band, art, field trips and accelerated classes to enhance student learning;
- an identified instructional leader and a coordinated instructional program. The instructional leader may be the teachers, the principal or the superintendent. In some low-achieving schools, the West Virginia Department of Education has become the instructional force by designating the school "seriously impaired;" and

- a principal with an open communication style, who is supportive of the teachers and the academic program.

Conversely, the analysis recognized a number of characteristics identified with, and sometimes shared among, those schools designated as less effective. Many of these traits, as one might assume, are the polar opposites of those found in effective schools. Several others are related to the problem of high staff turnover in isolated rural schools. None of these characteristics is an automatic indicator of a low-achieving school; however, it has been determined that the low-achieving schools in this study share many of these same traits. They are:

- high staff turnover;
- no continuity in instructional program;
- teachers not perceived as part of the school community;
- prevalent attitude by the faculty that students will fail because of their home environment;
- no identified instructional leader;
- limited special student programs to offset the detrimental effects of poverty when high levels of poverty exist;
- frequent student arguments;
- low student pride, low student respect for teachers and a perception by students that they are not respected;
- low student motivation by faculty or administration;
- poor school visibility and/or involvement by the school district's central office; and
- limited access to external opportunities.

Several of these conclusions may be summarized as the **ABC**s of effective elementary schools:

- a positive **A**ttitude that students can and will achieve;
- a **B**elief that a strong academic program can make a difference;
- and a serious **C**ommitment to the students and school.

Recommendations

The results of this study have convinced the Research Review Committee of the West Virginia Education Fund's Education Policy Research Institute that effective student performance *is* possible despite extreme adverse conditions. In fact, this research identified high student achievement in effective elementary schools irrespective of the degree of poverty, high or low parent education, high or low parent income or high or low parent involvement.

Several important recommendations for improving the effectiveness of elementary schools in West Virginia have flowed from this report. The catalysts for these ideas are embodied in the analysis of the survey data and the myriad interviews conducted as part of the research project. They are offered below and are not intended to be exhaustive. The Research Review Committee is confident, however, that their full implementation will contribute significantly to the overall effectiveness of West Virginia's elementary schools.

(1) Evaluate and revise the teacher seniority laws of the state with regard to their effect on teacher turnover and student achievement in elementary schools.

(2) Authorize administrators and Faculty Senates at the school site the flexibility, including monetary incentives, to select and retain personnel with skills appropriate to the needs of the school.

(3) Implement a strategy and specific plan to ensure low teacher turnover and continuity of the instructional program in all elementary schools in the state.

Example:

- Adopt a policy, making teacher transfers due to job bidding effective only at the beginning of the next school year, rather than allowing personnel changes during the school year, which create a chain reaction affecting a significant number of classrooms.

(4) Provide special instructional programs and activities, designed to offset the detrimental effects of poverty, in all elementary schools.

Examples:

- Provide full-day, five-day-a-week pre-kindergarten.
- Provide field trips for students to visit areas outside of the school's attendance area and/or provide a variety of groups and programs to visit the schools.
- Provide programs for all schools such as those found in School B in this study.

(5) Require staff development for all principals and teachers on team building, open lines of communication, mutual support, group facilitation and problem solving, conflict resolution and academic and behavioral expectations.

Example:

- Reinstate the Principals' Academy, based on the model that previously existed in the state under the direction of the West Virginia Department of Education.

(6) Require staff development for all administrators and teachers to develop and promote a strong collective school attitude and staff expectations that children, irrespective of their socioeconomic background, can achieve at significantly higher levels.

(7) Test student performance annually, using an appropriate instrument, in all grade levels and in all elementary schools to hold teachers and administrators accountable for the success of their students and to provide teachers with the data needed to make appropriate instructional adjustments.

(8) Establish minimum guidelines which hold each county school superintendent accountable for visits and/or communication with each of the schools in his or her county.

Example:

- Require county school superintendents to elicit and review a needs assessment from the principal and Local School Improvement Council of each elementary school in his or her county, and to work with each school's administration and Local School Improvement Council to develop an implementation plan for each school. The superintendent should be held accountable for these implementation plans in every elementary school in his or her county.

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Introduction

The purpose of this study is to advance the understanding of effective elementary schools in West Virginia.

Over the past 35 years, researchers have attempted to define what makes a school effective. Definitions vary from simple measures of high student achievement to complex measurements of positive teacher and student attitudes and behavior (Westbrook, 1982)[1]. The effective schools movement is anchored in the work of Ron Edmonds, who theorized that in some schools with a predominantly low-income, minority student body, students consistently performed on standardized tests well beyond what was expected of them (Teddlie and Stringfield, 1993).[2]

Murnane[3] (1983) states that the most important lesson learned from quantitative research on the determinants of school effectiveness is that schools make a difference, that teachers are a critical resource, that the composition of the student body matters and that secondary resources (physical facilities, class size, curricula and instructional strategies) may be seen as affecting student learning through their influence on the behavior of teachers and students.

In seeking to identify characteristics of effective and less effective elementary schools in West Virginia, this study focused on elementary schools in the state that consistently produce higher levels of student achievement, compared to other lower achieving elementary schools whose students have similar demographic and socioeconomic characteristics.

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[1] Westbrook, John D. (1982) "Considering the Research: What Makes an Effective School?" Southwest Educational Development Laboratory, Austin, Texas.

[2] Teddlie and Stringfield (1993), *Schools Make a Difference: Lessons Learned from a 10-Year Study of School Effects*, Teachers College Press, NY.

[3] Murnane, Richard J. (1983), "Quantitative Studies of Effective Schools: What Have We Learned?," *School Finance and School Improvement: Linkages for the 1980s*, Fourth Annual Yearbook of the American Education Association, Ballinger Publishing Company, Cambridge.

Phases of the Study

Phase One

In the first phase of the study, 560[1] elementary schools were ranked from high to low on a five-year average (1988-89 to 1992-93) of third grade Basic Skills standardized scores of the Comprehensive Test of Basic Skills (CTBS). Seventeen school variables were examined over the 33 highest and 33 lowest-ranked schools. The major findings were:

- the lowest-achieving elementary schools had 2.5 times the rate of needy students (those receiving free or reduced-price lunch) than the highest-achieving elementary schools (72.7 percent of the students received free or reduced-price lunch in the low-achieving schools, compared to 28.3 percent in the high-achieving schools);
- the lowest-achieving elementary schools had teachers with lower education levels and less experience than the highest achieving elementary schools;
- the lowest-achieving elementary schools had a greater number of split grades, smaller schools, smaller class size and pupil-to-teacher ratios and a greater percentage of students moving out of the schools than the highest achieving schools; and
- the 66 high and low-achieving schools were located in 27 of the state's 55 counties; one county had eight of the high and four of the low-achieving elementary schools.

Presented in Table 1 is an overview of the results of Phase One.

With this limited amount of information, we could not say there was a causal relationship between low-achievement schools and low teacher education and experience level, small schools and/or student mobility. The only thing we could say is that the highest-achieving elementary schools in the analysis had a low percentage of needy students and the lowest-achieving elementary schools had a high percentage of needy students.

Table 1. High and Low-Achieving Elementary Schools in West Virginia, 1991-92. Variable Data By Group Average

School Variables	n = 33 Low-Achieving	n = 33 High-Achieving	Difference/No Difference
2nd Month Enrollment	185	282	Difference
Enrollment/3rd Grade*	20	39	Difference
Average Class Size	18	21	Difference
Attendance Rate	93%	95%	No Difference
Students Moving In	9.4%	7.9%	Difference
Students Moving Out	12%	7.6%	Difference
Promotion Rate	95%	98%	No Difference
Pupil Teacher Ratio	14	18	Difference
Pupil-Administrator Ratio	215	275	Difference
Schools w/Split Grades	17	7	Difference
Experience (Years)	11	15	Difference
% Bachelor's	25.7%	8.8%	Difference
% BA + 15	32%	28.7%	No Difference
% Master's	10.7%	11%	No Difference
% MA + 15	9.4%	15.8%	Difference
% MA + 30	21.5%	35.2%	Difference
% Needy	72.7%	28.3%	Difference

* 1992-93 Data. Statistical Difference at $p < .05$

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[1] Elementary schools that had five years of test score data were used in the final ranking process. In 1988-89, West Virginia had 682 elementary schools; in 1989-90, 649; in 1990-91, 640; in 1991-92, 613; and in 1992-93, 573 elementary schools. In including only those schools which had five years of test score data, 114 elementary schools were eliminated from the study.

Worth noting is that a number of elementary schools, despite a high percentage of needy students, were achieving at high levels, and it appeared that many schools were underachieving in relationship to their percentage of needy students.

From the first phase of the study the question arose:

Why are some schools achieving at high levels and other schools with the same percent of needy students achieving at low levels?

Stated more briefly:

Why are schools with similar types of students achieving at different levels?

Phase Two

The second phase of the study was designed to try to find out why one school was achieving at a high level and another school was achieving at a low level when they both had similar percentages of needy students. After an extensive review of five years of achievement score data for 560 elementary schools representing 153,129 students, two years of free and reduced-price lunch data and residual charts from regression analysis, the West Virginia Education Fund's Research Review Committee selected seven schools for this study. There were three pairs of high and low-achieving schools as well as the highest-achieving elementary school in the state.

The schools were selected by a blind[5] review of residual scatterplots that had been constructed from regressing a five-year average of standardized achievement scores over two years of free and reduced-price lunch data for 560 elementary schools. The high and low-achieving schools with similar rates of needy students were identified from the scatterplots. This procedure was conducted for elementary schools with a third grade and no sixth grade and then separately for schools with a third and a sixth grade.

The Research Review Committee spent a considerable amount of time and debate on which types of elementary schools should be selected for the study. There was general concern by the committee members on the decline of achievement scores from third to sixth grade throughout the state and, as was pointed out, the nation. Another concern was in selecting elementary schools with a third grade but no sixth grade, versus schools with both third and sixth grade. It was noted that if only schools with both a third and sixth grade were included in the study, then 154 elementary schools would be excluded. Small school size (less than 200 students) was also a concern, but again, excluding 218 small schools would eliminate 39 percent. The final decision[6] was to include both a pair of schools with a sixth grade and a pair without, and not restrict the study for school size. It was also suggested that the highest-achieving elementary school in the state be included.

The following schools were selected:

School A: Low-achieving and 66% needy (K-5)

School B: High-achieving and 65% needy (PK-4)

School C: Low-achieving and 87% needy (K-8)

School D: Moderately high-achieving and 87% needy (K-6)

School E: Moderately high-achieving 3rd grade with decreasing 6th grade achievement and 15% needy (K-6)

School F: Moderately high-achieving 3rd grade with increasing 6th grade achievement and 16% needy (K-6)

School G: Highest-achieving (K-5) and 10% needy. No match

Additional Information

From the extensive review of the 560 elementary schools, it was found that as school size decreases, the percent of students receiving free or reduced-priced lunch increases; that approximately 52 percent of the elementary school children in the state receive free or reduced-price lunch; and in 60 percent (338 out of 560) of the elementary schools at least half or more of the children are designated as needy. The average enrollment of these high-needy schools ranges from 116 to 260 students. Schools with 40 percent or less needy students had enrollments of 269 to 327 students. Once again, we could not infer a causal relation between any of these variables and percent needy nor level of achievement. Presented in Tables 2 and 3 are overviews of the elementary schools in the state, levels of percent needy and achievement percentile levels.

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[5] Blind review indicates that the 560 elementary schools were not identified by name on the residual scatterplots. The residuals represent the difference between the actual achievement level of each school and the achievement level that would be predicted with their student free and reduced-price lunch rate. School outliers or high and low-achieving schools can readily be spotted on residual plots since they are cases with very large positive or negative results.

[6] Additional input to the final decision was from a technical discussion meeting with Dr. Elizabeth Koball (Virginia Polytechnic Institute and State University), Dr. Merrill Meehan (Appalachia Educational Laboratory), Dr. Alan DeYoung (University of Kentucky) and Dr. Mary Hughes (West Virginia Education Fund).

Table 2. West Virginia Elementary Schools by Levels of Percent Needy and Achievement Percentile Range

	3rd Grade Five Year Average Basic Skills Percentile Range							
% Needy	**30%-tile**	**40%-tile**	**50%-tile**	**60%-tile**	**70%-tile**	**80%-tile**	**90%-tile**	**# Schools**
0-19%					13	9	1	23
20-29%				8	11	11		30
30-39%			6	24	30	4		64
40-49%		1	15	49	33	6	1	105
50-59%		3	33	67	24	1		128
60-69%	1	10	30	39	16	3		99
70-79%	2	14	22	20	9			67
80-89%	1	6	20	10	4			41
90-99%	2		1					3
# Schools	6	34	127	217	140	34	2	560*
% Schools	1%	6%	23%	39%	25%	6%	.36%	

- * A few of the schools include K-12 students.
- * Elementary schools with five years of Comprehensive Test of Basic Skills (CTBS) achievement data and two years of free and reduced-price lunch data.

Table 3. Number of Needy Students by Elementary Schools. West Virginia, 1992-93

Range Percent Needy	Number of Needy Students October 1992	Number of Elementary Schools	Students Enrolled 1992
0-19%	1,219	23	7,474
20-29%	3,064	30	11,638
30-39%	7,523	64	21,085
40-49%	14,015	105	29,932
50-59%	20,148	128	35,659
60-69%	16,738	99	25,317
70-79%	10,661	67	14,112
80-89%	6,455	41	7,565
90-99%	337	3	347
Total	**80,160**	**560***	**153,129**

- * A few of the schools include K-12 students.
- * Elementary schools with five years of Comprehensive Test of Basic Skills (CTBS) achievement data and two years of free and reduced-price lunch data.

Conducting the Research Project

Phase Three

The process for this phase of the research project was to visit and observe the selected schools, conduct interviews and administer an effective school survey to teachers, parents, students and administrators and then analyze this data for the matched schools. In Phase Three, letters were mailed to the principals, school visits were made, group meetings were held in each school to explain the research project to the teachers, interviews were conducted and surveys were distributed. Unstructured interviews allowed the interviewees enough freedom to convey everything that they felt would describe their schools accurately. Approximately 50 teachers, parents and administrators from the participating schools were interviewed. Dr. Alan DeYoung, University of Kentucky, conducted the interviews over a two-to-three-day period in each of the seven schools and in the school district central offices of four of the schools.

A school climate survey, the Diagnostic Assessment of School and Principal Effectiveness from the Kansas Leadership in Educational Administration Development (KanLEAD), was chosen to measure the perceptions of school effectiveness by those involved in the schools. It was administered to 632 parents, 670 students, 82 teachers and seven principals or central office staff.

Surveys were administered to third, fourth, fifth and sixth grade classes by the teachers. Surveys for parents were sent home with the students, to be returned to the homeroom teacher or mailed to the research office in a sealed envelope. The parent package included a letter explaining the research project, the survey, a pencil and a return envelope.

Phase Four

Phase Four consisted of organizing, analyzing and reporting the vast amount of collected data. At this time it became very apparent that without the interview data we would have had only half of the story. For example, the numbers told us that low-achieving schools have teachers with low experience and education levels compared to the high-achieving schools. What the numbers did not tell us is that the low-achieving schools in rural areas were turn-over schools, with a history of teachers with seniority "bidding out" (requesting a transfer) as soon as they could get a job in another school. The numbers also did not tell us about the isolation of some of the schools, the distance that teachers had to drive or about the living conditions in the school areas.

We found that, superficially, the students appeared to be similar across schools. On closer inspection — by actually going to the schools and seeing the schools and the communities — we found that the teachers, parents, school climate, school programs and communities *were* different, and these differences appear to have an influence on the academic achievement of the children. The next section will present an overview of the seven selected schools, their students, parents and communities.

Overview of Selected Schools and Their Students, Parents and Communities

Paired schools in this study have similar percentages of students receiving free and reduced-price lunch, but differences in academic achievement as measured over a five-year period (1988-89 to 1992-93). One of the schools in each pair is achieving at a high level, while the other school is achieving at a low level. It turned out that Schools A, B, C and D were located in rural* areas while Schools E, F and G were located in non-rural areas. This was not known until the schools were identified.

It was not the original intent of this project to conduct a rural/non-rural study of effective schools. However, after visiting the schools and analyzing the data, it was found that the lives of the children and the school programs offered were dramatically different in the two types of areas, as will be illustrated by the interview and survey data. For all pairs of schools, the interview and survey data collected from teachers, parents, students and administrators were incorporated to identify and substantiate differences and commonalities. Following is an overview of the seven selected schools in this study.

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* A school was determined rural by observation and by the definition of and designation by the National Center for Education Statistics, Office of Educational Research and Improvement, U.S. Department of Education in the Common Core of Data CCD Disc. Definition for Rural: An area with 2,500 inhabitants or fewer and/or population density of less than 1,000 per square mile.

Paired Schools

Schools A & B
Schools C & D
Schools E & F
School G — No Pair

School A (Rural, High-Needy, Low-Achieving)

School A (K-5, 257 enrollment) is located in a rural, poverty-stricken area at the southern end of a county. For years, the area had been considered a closed society, isolated and hard to get to until the present highway was built.

The interview data indicated that the children in this area speak a dialect so unusual that it was referred to by interviewees as "a different language," have been to very few places outside of the area and could be considered foreigners to the outside world. Dysfunctional families, student health problems, lack of medical facilities and student behavior were cited as being some of the major obstacles to the education process.

The school building is one-story, with a concrete playground that has no playground equipment. An adjacent two-story building houses junior high students. A mountain, a highway and a railroad track close in one side of the school grounds; a creek and a mountain close in the other side. A 10 to 20-minute wait to enter or leave the school grounds is not unusual when a coal train passes, as the research team discovered first-hand.

School A is referred to as a "turnover school," with a history of teachers bidding out to other schools during the year or at the end of one or two years. Only 33 percent of the present faculty have been at the building five years or longer. Most of the teachers live at the other end of the county and commute one hour to the school.

Sixty-six percent of the students receive free or reduced-price lunch. The education level of the parents of surveyed students is low: 80 percent of the fathers and 69 percent of the mothers have a high school education or less (36 percent of fathers and 25 percent of mothers have less than a high school education); 14 percent of the fathers and 18 percent of the mothers have a college or graduate degree.

Test scores for School A traditionally have been low.

School B (Rural, High-Needy, High-Achieving)

School B (PK-4, 299 enrollment), although rural, is located in the county seat, which is the business center for the county and close to a major four-lane highway. The school receives more attention than other elementary schools in the county and has maintained a stable faculty over the last 20 years. As indicated by the interview data, teachers *want* to be at this school. Over 77 percent of the faculty have been at the building five years or longer. The major complaint concerning the school facility was that it is located on the side of a steep hill in a residential area, with no parking space for faculty or parents.

The superintendent of the county school system indicated there was a lot of poverty and welfare in the area and a high percentage of at-risk students in the school. The school acts as a "search and serve school," looking for and serving students in need.

Sixty-five percent of the students receive free or reduced-price lunch. The education level for parents of students surveyed is higher in School B than in School A, even though they were matched on free and reduced-price lunch participation. Fifty-six percent of the fathers and 45 percent of the mothers have a high school education or less (13 percent of fathers and eight percent of mothers have less than a high school education); 31 percent of the fathers and 33 percent of the mothers have a college or graduate degree.

Test scores at School B have been high for years.

School C (Rural, Isolated, High-Needy, Low-Achieving)

School C (K-8, 209 enrollment) is located in an isolated area that no one planned to call home during the 1920s and 1930s, when the coal companies were pushing roads in to develop coal mines and build houses for workers. At that time, there was no long-term planning for quality of life in the coal fields; no sewer systems were planned. Today the creeks are still open sewers and the area suffers from extreme poverty, with at least four to five generations of families on welfare.

The two-story school building is not close to anything except a row of houses along the creek bed. The area is rural, poor and isolated. A mountain and a two-lane highway close in one side of the school and a creek and a mountain close in the other side. The closest shopping mall is 60 miles away, grocery shopping is 25-30 miles away across two mountains, housing in the area is substandard and the environment is also considered substandard as there is no public sewer. But the interview data indicates that this situation is not unique to this school area.

The school has traditionally been a turn-over school. At present, about 46 percent of the faculty have been at the school five years or longer. About 75 percent of the faculty commute an hour to the school and, as noted in the interview data, "over pretty treacherous roads during the winter months."

Eighty-seven percent of the students receive free or reduced-price lunch. More than 82 percent of the fathers and 80 percent of the mothers of the students surveyed have a high school education or less (50 percent have less than a high school education) and about three percent of the parents have a college or graduate degree.

The students very seldom leave the area. Some of the parents have never been seen by school officials. The school and the school grounds provide the only source of recreation for the students outside of the home.

Test scores for School C have traditionally been low.

School D (Rural, High-Needy, Moderately High-Achieving)

School D (K-6, 157 enrollment) is located in a poor, rural area with high welfare, some working poor, a large number of single parents and families in transition. The community consists of a row of houses along the creek bank that runs parallel to the two-lane highway. The two-story school building is located across the highway from the homes. There are no stores or businesses in the immediate area, but a small town is located less than 15 miles away over a fairly level road. A larger urban area is located one hour away.

Eighty-seven percent of the students receive free or reduced-price lunch. About 88 percent of the fathers and 84 percent of the mothers of students surveyed have a high school education or less (41 percent of the fathers and 43 percent of the mothers have less than a high school education) and about three percent of the fathers and eight percent of the mothers have a college or graduate degree. The interview data indicated that the most important thing that many of the children look forward to is the first of the month when "the [welfare] check" arrives.

The faculty has remained stable over the years, is experienced and well educated. Approximately 78 percent of the faculty have been at the school five years or longer and have greater than a master's degree; all have greater than five years of experience. About half of the faculty grew up in the area and now live there; the others commute, from 30 minutes to one hour. Teachers *want* to be in this school.

The school's high expectation for academic performance is well known and as one teacher said, "We're big-time disciplinarians."

Test scores at School D have been high over the years, despite the adverse conditions of the students' environment.

School E (Non-Rural, Low-Needy, Moderately High 3rd Grade and Decreasing 6th Grade)

School E (K-6, 315 enrollment) is located in a stable, middle to lower-middle class, non-rural community with a majority of working parents and a few stay-at-home mothers. More than 275 of the 300-plus students walk to this neighborhood school.

The school building is an old, three-story building that does not have air-conditioning, but appeared to be in as good or better condition than most of the other buildings in this study. The building, playground and parking area are surrounded by city streets, but the area is flat and spacious. The parents are very active, supportive and involved in the operations of the school and school enrichment programs. Teachers *want* to be at this school. Eighty-five percent of the teachers have been in the school building five years or longer, 62 percent have a master's degree or greater and all have more than five years of experience. The school has received many state and national awards over the years.

Four percent of the fathers and two percent of the mothers of the students in the survey have less than a high school education; 43 percent of the fathers and 38 percent of the mothers have a college or graduate degree. Fifteen percent of the students receive free or reduced-price lunch.

Academic achievement in School E is above average in third grade but declines in sixth grade.

School F (Non-Rural, Low-Needy, Moderately High 3rd Grade and Increasing 6th Grade)

School F (K-6, 281 enrollment) is located in a non-rural, middle to upper-middle income residential area. The school building is an older, three-story building with a spacious playground and faculty parking area.

Sixteen percent of the students receive free or reduced-price lunch. Two percent of the fathers and three percent of the mothers of the students surveyed have less than a high school education; 64 percent of the parents have a college or graduate degree.

The staff is experienced and well educated, but less stable than in School E. Only 55 percent of the responding teachers have been in the school five years or longer, compared to 85 percent of the responding teachers in School E. But the interview data indicated that the teachers in the upper grades have been together and worked as a team for many years and the math teacher is very strong. Overall, teacher education level and years of experience were about the same as in School E.

Over a five-year period, academic achievement was above average in the third grade and increasing in the sixth grade.

School G (Non-Rural, Low-Needy, Highest-Achieving)

School G (K-5, 265 enrollment) is located in a non-rural, residential area of middle to upper-middle income professional families. The area has had a long tradition of community and parent support for education. Presently, the school is located in two buildings at different sites, but the community is in the process of constructing a new building to house students from both sites. The present facilities are similar to other old, two-story school buildings in this study.

Sixty-eight percent of the fathers and 69 percent of the mothers of students surveyed have a college or graduate degree and only one of the fathers and none of the mothers had less than a high school education. Eight to ten percent of the students receive free or reduced-price lunch.

School G's test scores over a five-year period (1988-89 to 1992-93) have been the highest for any elementary school in the state.

Comparing Schools A and B

The preceding section has provided an overview of the seven schools. In the next sections, the interview and survey data will be incorporated to identify and substantiate differences and commonalities between the paired schools. Quotes from the interview data are organized by topics that represent areas of identified differences between paired schools. The construction of these topics flowed from the interview data and was not pre-set.

Paired schools in this study are contrasted by several topic areas. These topic areas were determined by (1) a review of the interviews and (2) those areas in which the survey proved the paired schools to be statistically different. To protect the identity of the schools and the interviewees, most references to quote sources are omitted.

Comparing Schools A and B

Interview and Survey Data: Teachers, Parents, Students and Administrators

The question this study was trying to answer is:

Why are the students in School B achieving at high levels, when similar types of students in School A are achieving at low levels?

In both Schools A and B, about 65 percent of the elementary children receive free or reduced-priced lunch (1991-92, 1992-93).

From the survey data of responding students, it was noted that the fathers' level of education in School B was higher than the fathers' level of education in School A. Presented in Table 4 are two of the levels of parent education by school.

The number of responding students represents 71 percent of the third, fourth and fifth graders in School A (80 out of 112 students) and 89 percent of the third and fourth graders in School B (80 out of 90 students). In 1992-93, total school enrollment was 257 (K-5) for School A and 299 (PK-4) for School B.

Over a five-year period (1988-89 to 1992-93), the average third grade percentile rank for the Basic Skills of the CTBS ranged from the 23rd to the 49th percentile for School A and from the 72nd to the 94th percentile for School B.

On average, the teachers in high-achieving School B are older, have more experience, have a higher education level and have been teaching in their school for a longer period of time than the teachers in low-achieving School A (see Tables 15-17). Seventy-six percent of the responding teachers at high-achieving School B indicated they have taught in the building five years or longer, compared to 38 percent of the responding teachers in low-achieving School A. Fifty-three percent of the responding teachers in School B have a master's degree or greater, compared to 13 percent of the responding teachers in low-achieving School A.

The following areas of identified differences from the interview and survey data may be directly or indirectly related to why Schools A and B are achieving at very different levels, even though they have similar types of students. Because we are investigating a very complicated, inter-related, multi-dimensional subject, it is almost impossible to express in a simple way why one school is doing better than the other.

Interview Data - Schools A & B Areas of Difference

The following statements from the interview data are direct quotes about the schools, the communities and the areas of difference. Following each topic, quotes are presented first from low-achieving School A and then from high-achieving School B.

Difference: The Community's Location/Proximity to the Central Office

School A is located in an area that was considered a closed, isolated society until the new highway was constructed. School B is located in the county seat, the center of business activity and the school district central office. The two schools are located in different counties in different parts of the state.

School A (Rural, Low-Achieving)

"I think the big problem — for years and years and years — is the closed society. The school was a part of it. The community just existed there. They were satisfied. Outsiders stay away."

"There were two big mountains that you used to go over to get into that school. They cut one of them down when they put the new highway through and it's much easier to get in there now. You couldn't get in there during flood season at all. It was just cut off."

Table 4. Education Level of Parents of Responding Students. Schools A & B

Parents of Responding Students	Less than High School Education		College or Graduate Degree	
	Father	Mother	Father	Mother
School A (n = 80)	36%	25%	14%	18%
School B (n = 80)	13%	8%	31%	33%

n = number of responding students

School B (Rural, High-Achieving)

"There's probably more visibility for an elementary school in this town than there would be in outlying areas. This being the county seat, it has always gotten more attention. This school has been kind of a 'fish bowl' school. More of the parents influence public policy."

Difference: The Lives of the Students

School A (Rural, Low-Achieving)

"Some of these children have never been anywhere. They have no background as far as outside activities are concerned. They have no vocabulary level to deal with anything except what takes place in their own community. They do not have Cub Scouts, Girl Scouts, Brownies or whatever. Going to school is a big adventure."

"The health of our kids overall has been poor. Many — a large portion, as compared to other schools — have not gotten the medical treatment they needed. It's not just lice — it's impetigo, abuse — more in this school than in most schools in this county."

"If kids are out of school because they've got lice in their hair and their parents can't take them to get it treated, then they can't come back to school without a doctor's excuse, you've lost several days of real, actual instruction time to these kids."

"These kids speak a different language when they come here. They've been in these hollows for a long, long time."

"They are foreigners to the outside world."

"One of the main problems at this school is frustration control — anger, energy — and nowhere to release it. Our kids have a lot of trouble controlling themselves. Their first reaction is 'I'm going to knock you out,' and they don't say it — they do it."

"I have children who I know have big problems at home. It affects them mentally and physically. I have some who worry me. They just disappear, and you don't know what happened to them."

"There's all kinds of things going on in the homes right here. One social worker came in and said: 'Who cares about test scores? It's a miracle these children are even in the classroom.' "

"I'll tell you a story that happened in the middle school. The teacher told me this story, and she was so flabbergasted by it that she just couldn't believe that it happened. She had a student whose mother came to see her one day. The next day the student came in and said, 'We've got a new baby at our house. Don't you want to see our new baby?' So she went down the hall to see the new baby. The baby was about six or seven months old. Another parent asked, 'Did she give her kids away? I wanted one of them.' The mother that had the baby said, 'Yes, she told us in church she was going to do it and she did do it — as soon as I heard I ran because I wanted the baby.' They fixed it up in court. We have a great number of dysfunctional families in the area."

School B (Rural, High-Achieving)

"They have an ever increasing number of kids that are qualifying for free and reduced-price lunch in the schools."

"Something's happening with the kinds of kids we're getting into the school. The staff recognizes that the kids are getting tougher and tougher to teach because of deteriorating family situations, lack of parenting. Kids come to them unsupervised and unmanaged."

"I think there is a pretty high stress level in that school because they are trying hard and are still achieving, but it's not without great effort on the part of the faculty."

"There is a rising frustration because the teachers are literally peddling about as fast as they can. They're fighting an uphill battle. We just hope that it will level off instead of getting worse for them."

"We have a lot of parents who really care about the kids. Then, on the other hand, there are so many parents who don't. They couldn't care less about what happens. I think a lot of the parents just want to get the kids out of the house, get them to school, so they're out of their hair. They know they're fed here and they're taken care of."

"I think everybody wants the kids to like it here. We want it to be a place where kids want to come. Some of the homes they come from are horrible. When they are here, at least we give them a hug and we let them know we care about them. They get a good meal here. They eat in the morning. They eat at lunch. I don't know what they eat when they go home. Some of the kids, we have to make them go wash their face and hands in the morning. That's how bad it is."

Note: None of the interviewees in School B talked about the health problems of students, dysfunctional families, child abuse, disruptive behavior or the children having limited exposure to the outside world. That does not mean that School B does not have examples of these problems; it only says that they were not mentioned in the interview data. For the most part, the interviewees in School A talked about major problems, while the interviewees in School B talked about the instructional programs of the school.

Additional investigation may find that the children at School B have many of they same major problems that the children in School A have. Two important concepts may be: how have the two schools addressed the childrens' problems over the years and what causes different behaviors and expectations in teachers?

Difference: Services for the Children

School A (Rural, Low-Achieving)

"There was no social worker, there was no guidance counselor, there was no transition person. Now we have the transition person working here in the school. That has helped a lot. They have a social worker who is helping a lot."

"There is no playground. We have two basketball rims that do not even have nets and the school does not have basketballs. We do not have a multi-purpose room. Many of the kids are here at the crack of dawn. They're outside playing on good days or in the halls like sardines on rainy days."

"Now we're getting medical facilities on the school grounds. That is not just for the school but the whole community. We're trying to solve the problem before it comes to school."

"We found 66 [student] records that did not have speech and hearing testing. We had been paying a speech therapist to go to that school. This year I talked directly with the speech therapy coordinator and she said there is really a good person going there (the last two quit). In the past, the speech therapists have used every excuse not to go because they had to travel to that school. If they were going to be sick, they were sick on the day that they had to go to that school."

"The community is very far away from law enforcement. The school would be broken into periodically— like once a month, once a week— it was broken into several times. Only once in the last four or five years has it been broken into and VCRs and televisions taken. They don't break into the school nearly as much as they used to. So that has changed for the better."

School B (Rural, High-Achieving)

"There have been a lot of services at that school. Kids were brought to that school because we had more services available for them. The school psychologist worked out of that school. Counselors have worked out of that school. It was the primary place for the occupational therapist. If you just look at numbers [of available services], they were much higher at that school than at the others. It was one of the first schools to have a preschool handicapped program. The speech therapist is located there."

"They've always had a fairly good playground up there for kids. Probably they've had access to more support services in times past, but they don't right now. They don't have enough custodial help. There's only one custodian; it's the largest area in the county for one custodian."

"We're always on the lookout for students who need special help. We search, it's a search and serve center. We feel that early identification leads to identifying and working with kids early in their career so they don't become problems later in their elementary years."

Difference: Children Working/Not Working on Grade Level

School A (Rural, Low-Achieving)

"These students were behind when I got them in the third grade. According to the second grade teacher, they were behind when she got them, and it goes on down the line to the kindergarten teacher. When they came to the kindergarten teacher, the children didn't tie their shoes. They didn't put their own shoes and coats on."

"I've been told that in the past there have been so many kindergarteners that have possibly needed retained and they've said: 'Hey, you can't retain that many.' I guess that you would select a few that are doing the worst and send the rest on."

School B (Rural, High-Achieving)

"I'd guess now that for every kid who comes to that school, they're probably 95 percent successful in getting kids to read on grade level in the first grade. But

understand, when they come out of first grade they've been in preschool and kindergarten and learned all the basic skills."

"You can't just discount the benefit of a full-day, five-day-a-week, early childhood pre-kindergarten program as well as a full-day kindergarten program."

"One thing that has minimized the family situation is that elementary school has had a Headstart Program since 1981. Even prior to that, the school was the center for Headstart in the summertime for kids who were going to be coming into kindergarten. A lot of those teachers have been teaching full-day, five-day-a-week kindergarten since 1977."

"We have a strong first grade program in this school - very, very strong. These teachers know how to teach kids and they know how to teach first grade. They could go to any county in the world and raise test scores."

"Regardless of what the current opinion is of having a readiness kindergarten, we have an academic kindergarten at this school and they do readiness things. The focus of kindergarten is getting the kids ready for first grade."

"We have teachers sometimes that almost feel sorry for kids because they are kids. 'Poor little Johnny.' They get into this way of thinking and they're awful good to kids, but they don't choose to challenge them. The first grade teachers of this school do not feel sorry for kids. They expect a lot out of kids and they love them, but they still keep the standards up and get a lot out of them. That carries on into the third and fourth. The third grade picks them up, sends them sailing again. Fourth grade teachers take it on from there."

"Six children were retained in pre-kindergarten and three in kindergarten. But, when you get to the first grade level where you traditionally suspect there's going to be retentions. Out of 55 children, there was one retention and zero retentions in second, third, and fourth. The teachers know what's expected. They know that the kids they get are going to be at this level."

"We're already working with pre-kindergarten where the state is telling other school districts they ought to be with kindergarten."

Difference:
School Board and Central Office Support

School A (Rural, Low-Achieving)

"The Board seems to be supporting more of what we're trying to do."

"We are finally getting some support and some help. Our kids are being given some of the things that they should have been given a long time ago. We've been screaming, 'We need help! We need help!'"

"When I talked to the Board, I told them that we could not address the CTBS scores as successfully as we would like until we started dealing with the real problems. You have to get to the roots of these kids' problems to give them the help that they need emotionally, psychologically, for their health and sometimes just for their safety."

"The superintendent said that once upon a time schools like [School A] were just left out and the central office didn't pay a whole lot of attention to the remote elementary schools."

"Our school is totally repaired this year. The children really noticed it."

School B (Rural, High-Achieving)

"We have good board members who support us. We don't have anybody that mistrusts board members or feels that bad things happen because of political kinds of things."

"They try to make good decisions that will, in some way or another, foster good instruction and good educational development — like our library plan. They have voted to have an allocation set aside to buy some computers and some library media equipment for the library. They want to have a good library. Eventually we're going to hook up to fiber optic, the information highway — open our schools to the world."

"More of the parents influence public policy."

Difference:
Staff Stability

School A (Rural, Low-Achieving)

"For years, this was a turn-over school. You weren't here very long and you were out. This was where all the new teachers came. This was almost like a training ground. When you got

hired, you went to this school. You were here a year, two years, usually by your third year, you were transferred down to the other end of the county. That made it a real problem for the community to get to know and to trust the teachers who were in the school — especially for an isolated community."

"These teaching positions used to be considered stepping stones. You had to teach out in the county somewhere to build up your experience in order to get to move. In the bidding process you start out here. There are very few teachers with 15 years bidding out here. With more seniority, when a job becomes available, you can bid in closer to your home."

"For several years I had been a permanent substitute, which means at the end of the year I'm without a job. I've been bidding and bidding on jobs and this was my first year to get hired as a regular full-time teacher. Who gets a job is based on seniority. I was hired the day before school started. I am thrilled to have gotten hired this year."

"A majority of the teachers live out of town. It's not like we can stay after school and prepare our room for the next day or take 30-40 minutes to grade or organize and get ready."

"Most of the teachers commute. There are five in my carpool. There's another carpool with four."

"You have to be motivated to drive out here. You've got to have the desire or you wouldn't get up and drive out here every day."

"They do travel a long distance. They travel a very dangerous highway. There have been numerous accidents involving county teachers on the highway."

"I think that we are getting a better group of teachers now. I think they are staying longer and I think that is going to help the situation. There are some teachers who are trying to get out, but not nearly the extent that they were before."

School B (Rural, High-Achieving)

"Teachers wanted to come to this school rather than get away from it. If a teacher would start out in an outlying school, then when an opportunity became available, they would move to this school."

"The teachers that have traditionally come to this school have been...daughters of local businessmen, sons of local people, wives of professional people."

"You get this history of longevity. For example, the first grade teacher has been there 17 years and the first grade teacher before her had been there for over 20 years."

"You've got a stable teaching staff and I would suspect that the teachers who were brought into that school have always been considered by some as top class, pretty good teachers."

"There's been a turnover in administration — principals — but the faculty has pretty much remained constant over the past 20 years. There's been very, very little turnover."

"I could probably take the faculty of that school and put them in any school and probably replicate the results — regardless of who the principal was, regardless of SES standards, regardless of the kind of condition of the building. I think that says something for the power of a staff who is highly motivated, who want kids to learn, make kids learn, and know they can teach the kids."

"There are a lot of teachers at that school who spend a lot of time in their classroom preparing materials, preparing classroom decorations, preparing instructional things, working on their computers, a variety of things that I think benefit kids. They put in extra time there. They're there early, they're there late. They are there on days when they don't have to be there."

"When you look at the school as a unit, there's a kind of energy about that whole faculty. Everyone there works to make that school the best in the county."

(From the present principal): *"This school is, by far, the best overall that I have been in. It's not me, it's not the facility, it's not the parents — it's got to be the teachers."*

Difference: Instructional Leader/Principal Status

School A (Rural, Low-Achieving)

"This principal is like the backbone of the community. If people have problems, they go to him. If they have a fight with him, that's a big deal too."

"I have seen very few people who have been accepted by the community as a member, as a part of the community. I think that people in the community feel

like they can rely on the principal, and I think they would come in and say anything to him and feel perfectly comfortable in doing so. The principal is trying to bridge the gap between the teachers and the community because he was born and raised there. They feel like he knows all the ins and outs and all the secrets and everything like that and the teachers don't."

"Maybe I'm wrong. I don't think that everybody would believe this, but I do believe that there is a power struggle here between the teaching staff and administrative staff. We are putting in new telephones and teachers are insisting on making some changes in the telephone system. The fact that they previously could make long distance telephone calls and use the telephone has been taken away from them. The Faculty Senate wanted to draft a letter to the superintendent about the phone system because he [the principal] had taken that privilege away from them."

"I definitely think this would be a place for someone to come to study conflict resolution."

[Note: The principal at School A has been there for 20 years.]

School B (Rural, High-Achieving)

"We tend to think that the principal of the school has to be the school leader, and if he's not the school leader then the school is about to fail or not be as successful as it might have been with a strong school leader. Now that is true, but sometimes you have a school like this, that will compensate for a school leader that has a little different focus. That way, they can continue to achieve quality instruction and good learning for kids. The principals kind of come and go."

"I've been under five principals at this school."

[Note: The present principal lives in another county and drives in each day to the school. He has been there six years.]

"The principal is supportive— he allows us the freedom to do that which we do best. He is basically a resource, someone who cooperates with teachers. The teachers feel free to disagree and debate in front of him and they don't feel like he's going to hold grudges or give them any particular kind of reprimand."

"Teachers are pushing themselves to be the best they can be and they aren't worried about the principal or the central office telling them they should be doing something different."

(From the present Principal):
"For the most part the teachers work together for the common good. I kind of balance out the whole thing because a lot of times, they're probably more, well, I know they're more academic than I would be at that level. A lot of times I'll step back and just get out of the picture, rather than tell a teacher to do something different, because what they're doing is working. Kids like it here. They would rather be here for the most part. I could be in here with the governor and a kid would not be afraid to just walk in and come over and start talking to me."

Difference: Test Scores, Testing, Evaluation and Curriculum Alignment

School A (Rural, Low-Achieving)

"The test scores have traditionally been low for years and years and years."

"If you know on CTBS scores they're going to ask about sky scrapers, why haven't you told them about skyscrapers? Maybe the test is not testing these children. It kind of goes back to that way of dealing with them almost like they're foreigners because they ***are*** *foreigners to the outside world."*

"They [county office] told all of us [county office staff] when they first found they [School A] were seriously impaired, to spend as much time there as we could, to try and help out. They have tried to work through the Mental Health Association and the Welfare Department to get some help there, to try to get rid of some of the outside problems that were taking up a great deal of the school time to try to function."

"We have sample test sheets which show the children how to transfer an answer from one sheet to another. Once a week I try to review for that...getting them familiar with test-taking strategies. I reinforce how important it is for them to be here every day. I try to follow skills."

"Last year the third grade teacher was a permanent substitute. This year they placed her in the first grade position. Every year every job is up for grabs. Both of these jobs were placed up for bid, and I believe they placed me here [third grade] first. I think the very same week they placed her in the first grade. I heard she was a good teacher. I never get to see her now."

"It seems to me the things the teachers are willing to get together on are these issues that we talked about,

like the telephone and the computers. Those are the things that they come together on. They don't talk about instructional issues, the big picture and what we do in the first, second and third grade."

School B (Rural, High-Achieving)

"Their test scores have traditionally been the best in the county."

"The school does off-grade testing. Every school doesn't. We have a kindergarten test. We test first, second and fourth and the state does the third. The real reason we're testing each year is to make sure that our curriculum is aligned to what students are being asked on tests."

"Every year we get a profile on every kid and then we can track that kid on his or her test profile. The teacher of the next grade has that information at the beginning of the year so he or she can say: 'Here's the profile on these kids I've got, so here's what I need to do.' The teachers can look at their class test scores from the year before and see where they were short."

"We started doing this in 1977 and we've done it every year since. We figured the only way that we could improve secondary test scores is to start a kid out okay in first grade. When we start out there, we can keep them there."

"One of our first grade teachers has made the statement, 'If I don't have them reading at this certain place by November, I'm in a panic.' If they're not reading by November, these little kids don't read. We don't teach them to read in kindergarten. We teach the alphabet, if they're ready. If they are doing some reading, we support that; but, we don't teach reading in kindergarten. The teachers know what pace, they know where the landmarks are, know where those kids have to be to have them ready for that test. The first year we gave that test, there were little kids crying because the teacher could not sit with them and work with them in short intervals. So they had to get them used to being able to work at longer intervals. In February or March they started giving them practice passages just for fun so that they weren't so frightened when the teacher said 'You have to finish that on your own.' A first grade test is tough, but we picked the tougher of the two to keep the expectations up."

"I'm sure that over the years that school has probably done as much as any school to try to analyze test scores, to see what it is kids are missing, what they're short on and then changing their curriculum, changing the content of course material, the sequencing — the kids are exposed to that before they have to take the third grade test. You've got to remember kids go through five full years of preparation for the third grade achievement test — they ought to do pretty well on it. The teachers know what's expected."

Difference: Accountability and Expectations

School A (Rural, Low-Achieving)

There was no discussion by the interviewees from School A on accountability or school expectations, other than raising test scores. At the time of the interviews, the State Department of Education was holding School A accountable for their past and future performance. The school had been placed on seriously impaired status.

School B (Rural, High-Achieving)

"Testing everybody holds everybody responsible. When a school tests at third, sixth, ninth and eleventh, the second grade teachers don't feel quite as responsible for the test results as the third grade teachers who actually have their name on the top of the test."

"It's a fair assumption to think that if kids come to a teacher on grade level they ought to advance a year in their classroom. That's an expectation and should be, and has been and will continue to be. Everyone has to pull his share."

"A high level of expectation has been placed on the faculty at that school as well as on the principals. A teacher who couldn't maintain good discipline at that school creates a great deal of fuss. More so than somewhere else, where it is not so visible and recognizable."

"Steps were taken, probably over the years, to cause the faculty members to expect a certain level of performance, so that when you look at the school as a unit, there's a kind of energy about that whole faculty. Everyone there works to make that school the best in the county."

"Everybody's an individual, different from everyone else. Everyone has integrity and has a place, has a right to be there. And that probably is partly responsible for the prevailing attitude that everyone can learn and everyone can be successful doing something."

Difference: Home Visits

School A (Rural, Low-Achieving)

"I would suggest to the people of this school that they do a lot of home visitation because that is something they can do for staff development by West Virginia law. Until I went to their houses and I talked with their parents and I saw where they lived, I did not know what those children were doing — the kind of life that they led. I was a better teacher for having visited them. I think that I was less critical of the children."

School B (Rural, High-Achieving)

"The pre-kindergarten and kindergarten teachers make home visits. It is mandatory that they do a home visit at the beginning of the year, so they see every family."

Difference: Instructional Programs

School A (Rural, Low-Achieving)

"This is a school-wide Chapter I project and they have a lot more money than some of the others do for staff development...to talk about instruction."

"They have a computer lab. This school very quickly got into that mode and contributed and bought other computers and put their Chapter I computers and special education computers in there. One problem though — the teachers need to come to the lab with their kids. They need to be moving their students' lessons around. At this school the teachers do not know what the kids do in the lab. The kids are sent to the lab and they're baby-sat for about half an hour, and that's when the teacher gets their planning period."

"The school is in the process of teaching whole language. Last year, kindergarten; this year first grade; and every year following is to take another grade in. So teachers are switching a little bit over to whole language. Basically it is incorporating a central theme across all areas of the curriculum."

School B (Rural, High-Achieving)

"We've found that the Open Court reading program worked for us in the late seventies and early eighties, and we've stuck with it. It's a highly structured program with quite a bit of work on the part of the teachers. It's hard to teach. [Some] Teachers don't like to use it because it requires more work, time, effort, etc. It produces results for them because they are experienced and know how to use it; it works for them and they're sticking with it."

"Open Court is probably the foundation for our reading here. Now a lot of people want whole language and all that other stuff, but Open Court is a multi-model, multi-instructional program. We teach phonics and sight words. The readability on that is about 2.6 at the end of the first grade year so we pick the harder test to correspond to that. Everybody tries to work toward that expectation as opposed to grade level 1.6."

"I used to give a lot of homework. Over the years I have found they need to relax, and for a lot of families it's a very stressful thing. They can't do it. They can't help their kid do it. Then they're yelling at the kid, and the kid is crying, so there's a very negative attitude toward school. So now my assignment every night is to read 15 minutes. I used to give definitions and vocabulary but so many of them don't have the help. They don't have a desk. They don't have a pencil. They don't have any paper. I really changed on the homework."

"We have Chapter I reading and math. We have speech therapy. We have a pre-kindergarten program — a four-year old program — which is kind of unique statewide in that we are full-day, every day. It's just that a lot of kids are better off at school than they are at home. Ordinarily, I think a child needs to be at home to get proper nurturing. Most of them are better off here. They get two good meals. They have toys to play with, which is more than a lot of them have at home."

"We just got the computers hooked up so the kids are really happy. We've only had them since September. We don't have a computer lab — the computers are in the classroom. If you could have a lab and a teacher could take your class and do a wonderful job, it would be great. I would like to have both. I would like to see how they run a lab. I guess the kids would get more hands-on that way. We don't have our printer yet — we ran out of money."

"Our day is so much longer than most elementary schools in West Virginia because we go on the high school bus schedule. They start coming at 7:30. Our class takes up at 8:30. We dismiss at 3:15. We're way over minimum, about 45 minutes.

"We have Special Pals. We choose kids that have a hard time at home, that really need some extra attention, and they'll be our buddy for the whole year. We'll get them a little gift for holidays or

just any time. I got my special pal a Walkman for Christmas. He really wanted that Walkman. I didn't pay that much money for it, but anyway, I got him the Walkman. Two weeks later I said, 'Sam, how do you like your Walkman?' He said, 'I gave it to my dad.'"

No Difference: Parental Involvement

School A (Rural, Low-Achieving)

"We have had a great deal of difficulty in starting a Parent Teacher Association (PTA). It is something that the State Department is really pushing for. The school is going to have a hard time not being considered seriously impaired if they don't develop this PTA."

"Several years back they had a PTA and...they decided they would have a carnival. Have you heard about this carnival? They elected a king and a queen of the carnival and it became a big issue in the community. Two families really got into it, big time, over who was going to be the queen. They raised money and one of them took money that they had borrowed against their house and put it on the king and queen contest. The principal tried to get the families to take the money back. They would not. It caused a great deal of ill-will in the community. And right after that they dropped the PTA because the community was so divided over that issue."

"Fifty percent of the parents are trying to support the school and 50 percent, if they could vote to close the school, would close it. You have such a wide variety of IQ ranges in that community, and education rebels in that community, and you have people who have no education and people who have doctorates."

"You can get parental involvement. We were going to work with some of the parents and have them work in the library. There was a big competition in the community as to who would get to work. And so everything becomes a competition and they are very competitive. If you wanted to raise money to take the cheerleading squad to the moon, they could possibly get the money together."

"The parents get so little attention from the rest of the world that when they get some they go overboard, they overreact."

School B (Rural, High-Achieving)

"The teachers are really into this business of pushing kids, of trying to get everything out of those kids. And they're probably having to fight parents to do that. If you could somehow tap into parents, they would probably tell you the kids are really being pushed."

"There has always been a fairly high level of parental involvement at that school. They have always had a PTA or Parent Teacher Organization (PTO) and parent volunteers. We have programs where parents come to the school and see their kids. One of the reasons the PTO is not real active is because we don't have parking spaces and that doesn't set too well. We've always welcomed parents to come into the child's classroom."

"We have a parent volunteer program. They come in and work all day long, just like a job. For the most part it's office help. Some help with reading."

"I think school intimidates parents of low-income status. I think they come in and think 'Oh, I was terrible in school. I never graduated. I can't talk right. I don't look right.' They won't even come to the room."

Comments: Local School Improvement Council (LSIC)

School A (Rural, Low-Achieving)

"We are still working on the medical facility, a playground, getting a PTA and a teachers' organization started. We had a planning meeting early in the year. We had West Virginia Extension Services, West Virginia University, Marshall University, board members, the principal, the county health nurse, a student nurse — a lot of different people there — and these were some issues we started at the beginning of the year, trying to teach and treat the whole child. I think some of them are starting to work."

"One of the reasons so many of us are pushing so hard for a playground is because one of the things these kids seem to lack is social interaction skills."

"So all of these things that the LSIC and the whole school have been working on are to try to help alleviate some of those teacher frustrations and teacher time-takers. In the past they have been trying to do that all on their own and they can't do it."

"Having these group LSIC and group Faculty Senate meetings where it's all out on the table and it's all discussed there has helped. Teachers that might not normally speak up for one reason or another, now they can. They can write down suggestions or they can voice their opinions through someone else. Anybody

that wants to put something on the Faculty Senate agenda can do that. Sometimes that keeps teacher frustration down."

School B (Rural, High-Achieving)

LSIC was not a major part of the discussion. One teacher commented that it was a very positive thing.

Summarized in Table 5 are the areas of difference between Schools A and B that were identified in the interview data.

Table 5. Summary: Areas of Identified Differences. Interview Data: Schools A & B

Areas of Difference	School A (Low-Achieving) 66% Needy	School B (High-Achieving) 65% Needy
Community Location (Proximity to Central Office & School Board)	Isolated, One Hour Away Low Visibility	County Seat Same Town High Visibility
Lives of Students & Adverse Conditions	School Has Not Overcome	School Has Overcome
Available Services	Lacking	Full Services
Students Working on Grade Level	Working Below	On Level (95% Successful)
School Board & Central Office Support	Improving	Very Strong
Staff Stability	Drive-In School High Turnover	Very Stable Low Turnover
Instructional Leader	Not Identified	Teachers
Testing	3rd Grade	All Grades
Testing Readiness	Increasing Preparation	Constant, Long Term Preparation
Accountability & Expectations	No Discussion; State Holding School Accountable	Teachers are held Accountable by the System and by Themselves
Teachers Working as a Team Over Time	No - High Staff Turnover	Yes - Teacher Orchestrated
5 or More Years in This Building	38% of the Teachers	76% of the Teachers
Pre-Kindergarten	No	Yes
Home Visits	No	Yes - PK/K
Principal/Teacher Relations	Conflict	No Conflict; Supportive
Parental Involvement	No PTA Volunteers	Limited PTO Volunteers

Analysis of Survey Data Schools A and B

The purpose of the next section is to compare Schools A and B on the results of the survey data. Since this is an exploratory and descriptive study, and since there is a large amount of quantitative data, stringent criteria for interpretation and drawing conclusions were established.

Within the survey there are eight subscales for students, seven for teachers and five for parents. The strategy was to analyze globally all subscales for students, teachers and parents from all seven schools, using multivariate analysis.

In order not to overlook important information that may have been camouflaged by a total scale score, an examination of each question within a scale across all seven schools was conducted using Analysis of Variance and User Contrasts with an alpha value set at .01. A detailed analysis of the survey data is located in Appendix A.

The first comparison of the survey data from Schools A and B is the staffs' view of the school, followed by those of the students and finally, those of the parents.

Staffs' View of the School Survey Data Schools A & B

The staffs' perceptions of Schools A and B, as measured by six of the seven staff survey scales, are presented in Table 6.

A detailed description of the analyses of the survey scales and a list of questions for each scale are presented in Appendix A and B. Staff morale, staff commitment and feelings of job satisfaction were identified as differences between the responding teachers of low-achieving School A and high-achieving School B. There were no differences between the schools on the teachers' perceptions of the ability of the school to unify school tasks necessary for achievement (school integration), the ability of the school to achieve objectives (goal attainment) and the school's ability to deal successfully with parents and the community (school adaptation).

The areas of difference — staff morale, staff commitment and job satisfaction — will be discussed in more detail in the following sections.

Table 6. The Staffs' Perception of the School and Their View of Themselves. Schools A & B

Survey Scale: Staffs' Perceptions	Difference*/No Difference Between Schools A & B
School Integration The school's ability to unify school tasks necessary for achievement	No Difference
Goal Attainment The school's ability to define and achieve goals	No Difference
School Adaptation The school's ability to deal successfully with parents, the community and change	No Difference
Staff Morale Adequate work conditions, harmonious staff relationships	Difference
Staff Commitment Acceptance of the school's values; desire to remain an employee of the school	Difference
Job Satisfaction The degree to which the teacher likes his or her job	Difference

* Statistical Difference at $p < .01$

Areas of Difference: Schools A & B

Staff Morale

There were considerable differences in the way the teachers in Schools A and B felt about work conditions, personnel policies and practices and staff relationships, as noted by the positive response rates to the survey questions in Table 7. Strong positive response rates represent the percentage of responding teachers that strongly agree or agree to a question. Other response options to questions were neutral, disagree and strongly disagree. "All" represents the average rate of response of strongly agree or agree by all responding teachers from all seven schools in the study.

The greatest difference in staff morale between the two schools appeared to relate to the working relationship between the faculty and administration. Zero percent of the responding teachers in low-achieving School A indicated there are open lines of communication between the teachers and the principal, compared to 94 percent of the responding teachers in high-achieving School B.

In School A, eight out of 13, or 62 percent, of K-5 classroom teachers responded to the survey; in School B, 17 out of 24, or 71 percent, of pre-kindergarten through fourth grade classroom and special teachers responded to the survey.

Table 7. Staff Morale. Low-Achieving School A & High-Achieving School B

Areas of Differences in the View of the Teachers	**Strongly Agree + Agree Percent**		
Staff Morale	**School A**	**School B**	**All**
The workload is adequately balanced among the faculty members of this school	25%	82%	78%
The principal is concerned with faculty working conditions	0%	88%	80%
There are sufficient social activities for the faculty	0%	38%	41%
The principal encourages suggestions from the faculty	13%	82%	83%
There are open lines of communication between the faculty and the principal	0%	94%	79%
There is general faculty confidence in the principal	13%	59%	72%
Number of Responding Staff	8	17	82

Statistical Difference at p < .01

Staff Commitment

There were considerable differences in the way teachers in Schools A and B felt about their school's values, their willingness to exert effort on behalf of the school and their desire to remain an employee of the school (see Table 8).

Table 8. Staff Commitment. Low-Achieving School A & High-Achieving School B

Areas of Differences in the View of the Teachers	Strongly Agree + Agree Percent		
Staff Commitment	**School A**	**School B**	**All**
If offered a better salary I would move to another school	88%	18%	29%
I tend to identify with this school and strongly support it when it is attacked	38%	82%	78%
I would leave this school for any other	75%	0%	15%
The values of this school are inconsistent with my own values	38%	0%	13%
This school is an excellent organization	13%	88%	74%
Number of Responding Staff	8	17	82

Statistical Difference at $p < .01$

Seventy-five percent of the responding teachers in low-achieving School A indicated they would leave the school for any other, compared to zero percent of the responding teachers in high-achieving School B. Eighty-eight percent of the responding teachers in high-achieving School B thought the school was an excellent organization, compared to 13 percent of the responding teachers in low-achieving School A.

Staff Job Satisfaction

There were considerable differences between the two schools in the way the teachers felt about their jobs and the principal (see Table 9).

Table 9. Job Satisfaction. Low-Achieving School A & High-Achieving School B

Areas of Differences in the View of the Teachers	Strongly Agree + Agree Percent		
Job Satisfaction	**School A**	**School B**	**All**
This job gives me professional satisfaction	50%	100%	89%
I am satisfied with the amount of work I am expected to do	13%	94%	78%
I am satisfied with the trust I have in the building administrators	0%	88%	75%
I am satisfied with the professional competence and leadership of my building administrator	0%	59%	74%
I am satisfied with the opportunities provided to discuss problems with my building administrators	0%	82%	76%
Number of Responding Staff	8	17	82

Statistical Difference at p < .01

Students' View of the Schools and Themselves
Survey Data
Schools A & B

There were no differences in how the responding students in low-achieving School A and high-achieving School B viewed their respective school and themselves. Specifically, the responding students in both schools had similar perceptions in the belief that their school expects a high performance level (school norms); in their school's ability to deal successfully with parents and the community (school adaptation); of the relationship between student effort and subsequent rewards (academic futility); in their school's ability to organize and unify the various school tasks necessary for achievement (school integration); and no difference in student self-concept, student self-reliance or student motivation (see Table 10).

Table 10. Students' Perception of the School and Their View of Themselves. Schools A & B

Survey Scale: Students' Perceptions	Difference*/No Difference Between Schools A & B
School Norms School expects a high performance level	No Difference
School Adaptation School's ability to deal successfully with parents, community and change	No Difference
Academic Futility Relationships among effort and reward	No Difference
Self-Concept Student's ability to master school work, friendships and acceptance	No Difference
Self-Reliance Student's ability and desire to function independently	No Difference
Motivation Student's motivation to attend school and importance of school	No Difference
School Integration School's ability to unify school tasks necessary for achievement	No Difference
Maintenance Student and employee loyalty to the school	No Difference

* Statistical Difference at $p < .01$

From the individual questions, differences were identified between the two schools in the students' perception of student pride in the school, frequency of student arguments and respect for the teachers. Sixty-five percent of the responding students in low-achieving School A indicated that students in the school respect the teachers, compared to 83 percent of the responding students in high-achieving School B. Correspondingly, 65 percent of the students in School A felt that students in their school were highly respected, compared to 81 percent in School B. It appears that approximately the same percentage of students that respect the teachers in a given school also feel highly respected.

Table 11. Students' View of the School. Low-Achieving School A & High-Achieving School B

Areas of Difference in the View of the Students	Always + Usually Agree Percent		
	School A	School B	All
Students in this school work hard to do well on school assignments	72%	87%	83%
Students in this school feel it is important to do well in school	72%	85%	76%
My parents think the school is doing a good job	73%	89%	86%
I would quit school if I could	30%	14%	15%
Students at this school are very proud of the school	62%	80%	75%
There are often arguments between students at this school	76%	37%	43%
Students in this school respect the teachers	65%	83%	77%
Students in this school want to do well	80%	91%	84%
Number of Responding Students	80	80	670

Statistical Difference at $p < .01$

Presented in Table 11 are specific areas of difference in student responses about the schools and the students. The student responses in Table 11 are the combined responses of always agree and usually agree. Other available student responses were neutral, disagree and strongly disagree.

The number of responding students in School A represents approximately 71 percent of third, fourth and fifth graders (80 out of 112 students); and approximately 91 percent of third and fourth graders from School B (80 out of 88 students).

A higher percentage of the responding students in both schools *want* to do well, compared to the percentage that *work hard* to do well. This higher response rate holds true for all the schools in the survey on students wanting to do well, compared to students working hard to do well. Schools A and B appear to have a high percentage of students that want to do well, 80 and 91 percent respectively, as perceived by the responding students.

One topic that needs to be further explored is that of arguments between students at the school. As noted in Table 11, 76 percent of the students in low-achieving School A agreed that there are often arguments between students at the school, compared to 37 percent of the responding students in high-achieving School B.

The interview data suggested that the problem of frequent student arguments in School A is a much greater and more complex problem than simple disagreements between students. The interviewees at School A discussed dysfunctional families, child abuse, student medical problems, lack of needed school services and lack of playground equipment as being underlying factors to the symptom of student arguments. What appeared to be evident in School B is that many student problems had been addressed by student services, continuity of staff and programs and a concentrated effort over time by the staff and the central office to overcome the detrimental effects of student home life on student achievement. These were absent in School A.

Parents' View of the School
Survey Data
Schools A & B

On all survey scales relating to the parents' view of the school, parents of low-achieving School A had a slightly more positive perception of their school than the parents of high-achieving School B. Statistically, however, there were no differences in how they viewed their respective high or low-achieving school, as noted in Table 12.

Table 12. Parents' Perception of the School. Schools A & B

Survey Scale: Parents' Perceptions	Difference*/No Difference Between Schools A & B
School Integration Work conditions, personnel policies and practices, staff relationships	No Difference
Goal Attainment The school's ability to define and achieve goals	No Difference
School Adaptation The school's ability to deal successfully with parents, community and change	No Difference
Maintenance The school's ability to maintain student, parent and employee loyalty	No Difference
Principal Behavior The parents' view of the principal	No Difference

* Statistical Difference at $p < .01$

Table 13. The Parents' Perception of the School.
Low-Achieving School A & High-Achieving School B

Areas of Commonality in the View of the Parents	Always + Usually Agree Percent		
	School A	School B	All
I am satisfied with my child's school	69%	69%	81%
Parents feel pride in my child's school and in its students	68%	67%	80%
My child's school is highly respected	52%	60%	78%
If I could, I would send my child to another school	13%	21%	14%
I know many of the staff and parents at my child's school	80%	78%	83%
The staff at my child's school really cares about him/her	87%	69%	80%
My child's school is not a very good school	20%	15%	7%
There is a "we" spirit in my child's school	87%	73%	87%
Parents at my school are very loyal to the school and staff	64%	48%	73%
The principal involves parents in school activities	86%	82%	85%
Number of responding parents	48	119	632

Presented in Table 13 are selected questions that illustrate the similarity of the parents' responses from Schools A and B. It is interesting to note the relatively low positive response rate by the parents of *both* Schools A and B concerning their schools, compared to how parents in the five other schools in the study view their schools.

The only explanation from the interview data for the low positive perception of School B by parents is the great effort undertaken by the school to make sure that students are successful. As one individual stated, "The teachers are really into this business of pushing kids, of trying to get everything out of those kids. And they're probably having to fight parents to do that." Their success appears to have been at the risk of low acceptance and low approval by the parents. Twenty-one percent of the responding parents of high-achieving School B indicated they would send their child to another school if they could, compared to 13 percent of the responding parents in low-achieving School A.

The parent response rate for School A was approximately 43 percent (48 out of 112 third, fourth and fifth grade parents); and for School B, approximately 72 percent (119 out of 166 parents). A low parent response rate for School A was predicted by the principal of the school before the surveys were returned.

One area of difference between the responding parents of School A and School B was loyalty to the school. Sixty-four percent of the parents in School A indicated they were loyal to the school and staff, compared to only 48 percent of the parents in high-achieving School B.

One other puzzling statistic was that 40 percent of the responding parents in School B indicated that most of their child's interests lie outside of the school, compared to seven percent of the responding parents in School A. There is no explanation for this in the interview data, nor do the students' responses correspond to this response by the parents. Eighty percent of the responding students in School B indicated they like to be in this school. This was the highest response rate of all the responding students in the study.

There are other areas where the parents and the students are not in agreement in their responses. For example, in both schools the parents had less positive feelings of satisfaction about their school doing a good job than what the students thought they would have. About 89 percent of the responding students in School B thought their parents would think the school is doing a good job; only 69 percent of the parents indicated they were satisfied with their child's school.

Summary: Schools A & B

Both schools are located in rural areas with a high level of poverty and welfare assistance.

School A is located at the end of the county, considered to be an isolated area until the present highway was constructed. It is a drive-in, turnover school. For years, teachers have been placed in this school for a short period of time. As seniority allowed, the teachers would bid out to other schools in the county and teacher turnover has been high over the years. At the present time, the instructional force in the school is the State Department of Education which has intervened in order to bring achievement levels of the school above the 30th percentile. In the past, there did not appear to be a concentrated effort on the part of the teachers or the administration to coordinate the instructional program. This could be due to the considerable turnover of teachers each year.

Over the years, School A has had serious student problems that have not been addressed by special services such as counseling, speech therapy, medical services or pre-kindergarten. Now that the school is becoming more visible to the central office, due to the state's interest in the school's low achievement level, the school is receiving services that have been needed for years. Added to the student problems, there was an indication in the interview data that a conflict existed between the staff and the administration. From the survey data, the teachers indicated low morale, low job commitment and low job satisfaction. Perhaps because a majority of the teachers travel at least one hour to get to the school, very little time is spent at the school after-hours preparing for the students or being a part of the community.

High-achieving School B is located in a county seat, has high visibility, receives more attention than other elementary schools in the county and has maintained a stable teaching staff over the last 20 years. Teachers want to be at this school. As stated in the interview data, "the teachers selected for this school have always been considered as top class."

The teachers are the instructional leaders in high-achieving School B and have strong support from the superintendent, the principal, the central office, the school board and available student services. It was noted in the interview data that this group of teachers has a collective energy to be successful. "They are the key to the success of this school," according to the principal.

The school has all day pre-kindergarten, a focused kindergarten, a strong first grade program, Open Court reading program, reading training for the faculty, first grade reading success, home visits for pre-kindergarten and kindergarten, a constant search for students who need special help for early identification, test score results analyzed by classroom teachers to find weaknesses in the instructional program, testing in every grade resulting in school-wide accountability and expectations that students will advance one grade level over the school year. Teachers spend many extra hours at the school preparing for the students.

On average, the teachers in high-achieving School B are older, have a higher level of education, more years of experience and have been at their respective school longer than the teachers in low-achieving School A.

Approximately 65 percent of the students in both schools receive free and reduced-price lunch. The education level of the fathers of the responding students at School B was higher than at School A.

There were no differences on the survey scales between the students' perceptions of School A and School B. The areas of student differences that *were* identified related to frequency of student arguments, respect for the teachers, school pride, the importance of school to the student and student work effort.

The responding parents from both School A and School B had similarly low positive perceptions of their respective school — lower than the responding parents of the other five schools in the study. The similar response by the parents of low-achieving School A and high-achieving School B was an alarming finding in itself.

From the interview and survey data, the following major areas of difference were identified between low-achieving School A and high-achieving School B. The areas of difference are not listed in order of importance, but in the order they appeared in the previous data.

Areas of Difference: Schools A & B

- Central office and school board support, perhaps related to location, proximity to central office, and visibility
- The school overcoming the detrimental aspects of home life
- Available student services
- Students working on grade level
- Faculty stability
- Number of years teachers working in the school
- Faculty working as a team over time
- Identified instructional leader

- Principal/teacher relationships
- Testing readiness
- Testing all grades
- Teacher accountability
- Home visits
- Pre-kindergarten, full-day, five days a week
- Readiness kindergarten
- First grade reading success
- Productivity and achievement levels
- Teachers working after school, preparing for the students
- Teacher morale
- Teacher job commitment
- Teacher job satisfaction
- School climate
- Student arguments
- Student respect for the teachers
- Students - Importance of school
- Students - Work effort
- Students - Pride in school
- Parents - Loyalty to school
- Difference between student and parent perceptions about the schools

The location of a school may have an indirect effect on its success. If the school is located in the same area as the school district's central office and if the school has high visibility, then the school most likely will receive additional student services that other schools may not receive. For the past 20 years, School B has had available many services to support the teachers with major student problems. The opposite has been the case with School A.

One of the most important differences between the two schools appears to be in faculty stability; a turnover faculty compared to a 20-year, stable teaching staff that has worked as a team over the years.

In School B, the teachers are the key to success, but a success that has been aided and supported by special programs, special services, the principal, the central office and the school board.

In contrast, School A has existed in isolation, with limited help from the central office, limited special programs and services, no continuity of instructional programs and no staff stability from year to year. School A has existed for years without the necessary components for success. It appears that School A could be as successful as School B, if it were allowed to have stability, special services, pre-kindergarten and concentrated attention.[*]

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[*] Note: Differences in teacher education level and years of experience at the two schools appear to be a direct result of the bidding process and the rule of seniority. It would be hard to attribute teacher education level and years of experience as direct, major factors to the success of School B and to the failure of School A because of how teachers have been assigned to the schools or how teachers have chosen to stay or leave the schools. It appears that staff stability, the number of years in one school and working as a team over time are more important factors. These factors may correlate with education level and years of experience; if so, education level and years of experience may then be considered as having an indirect effect on success.

Also, because the teachers at School B have more years of experience and a higher education level than the teachers at School A, School B could appear to have a higher per pupil expenditure than School A.

Demographics
Schools A and B

In School A, eight out of 13 teachers, or 61 percent, responded to the survey; in School B, 17 out of 24 teachers, or 71 percent, responded to the survey.

Table 14. Number Responding to Survey

Group	School A (Low-Achieving)	School B (High-Achieving)
Students	80/112 (71%)	80/88 (91%)
Grades	3rd, 4th, 5th	3rd, 4th
Parents	48/112 (43%)	119/166 (72%)
Teachers	8/13 (61%) Classroom	17/24 (71%) Classroom/Other
Principal	0	1
Total Responding	136	215

Table 15. Number of Years Taught in this Building by Responding Teachers

Years	School A	School B
<= 1 Year		5.9%
2-4 Years	37.5%	17.6%
5-8 Years	25.0%	
9-12 Years		17.6%
13-20 Yrs.	12.5%	52.9%
=> 21 Yrs.		5.9%
Non-responding	25%	

In reply to the question, "How long have you taught in this building?" 76 percent of the responding teachers at high-achieving School B indicated they had taught in the school five years or longer, compared to 38 percent of the responding teachers in low-achieving School A.

In years of total teaching experience, 94 percent of the responding teachers in School B indicated they had five or more years of teaching experience, compared to 50 percent of the responding teachers in School A.

Twenty-five percent of the responding teachers in School A did not answer the questions reflected in Tables 15, 16 and 17.

Table 16. Education Level of Responding Teachers. Schools A & B.

Education Level	School A	School B
Bachelor's degree		5.9%
Some graduate work but less than a master's degree	62.5.%	35.3%
Master's degree		5.9%
More than a master's degree but not a doctorate	12.5%	47.1%
Doctor's degree		
Non-responding	25%	5.9%

Fifty-three percent of the responding teachers in high-achieving School B have a master's degree or greater, compared to 13 percent of the responding teachers in low-achieving School A.

Table 17. Age of Responding Teachers. Schools A & B.

Age	School A	School B
20 - 25 Years Old		5.9%
26 - 30 Years	25%	
31 - 40 Years	50%	47.1%
41 - 50 Years		41.2%
51 - 60 Years		
61 Years or Older		
Non-responding	25%	5.9%

Eighty-eight percent of the responding teachers in School B indicated they were between the ages of 31 to 50 years old. Seventy-five percent of the responding teachers in School A indicated they were between the ages of 26 to 40 years old.

Comparing Schools C and D

In the following section, Schools C and D will be compared. In both of these rural schools, approximately 87 percent of the students receive free or reduced-price lunch. School C is identified as a low-achieving school, while School D is moderately high-achieving. As in the previous section, which compared Schools A and B, the following pages will present interview and survey data to identify and substantiate differences and commonalities between Schools C and D.

Quotes from the interview data are organized by topics that represent areas of identified differences between the paired schools. These topics may be different from those in the previous section.

Comparing Schools C and D

Interview and Survey Data: Teachers, Parents, Students and Administrators

In low-achieving School C and moderately high-achieving School D, approximately 87 percent of the elementary school children receive free or reduced-priced lunch (1991-92, 1992-93). The average level of parents' education is about the same between the two schools, as measured by responses to the students' survey. Approximately 50 percent of the parents in School C and about 41 percent of the parents in School D have less than a high school education. Two of the levels of parent education by school are presented in Table 18.

In 1992-93, school enrollment was 209 (K-8) for School C and 157 (K-6) for School D. The student response rate to the survey was approximately 76 percent (38 out of 50 third through sixth graders) for School C and approximately 84 percent (76 out of 90 third through sixth graders) for School D.

Over a five-year period (1988-89 to 1992-93), the average third grade rank on School C's Basic Skills of the CTBS was in the 30th to 40th percentiles for four of the years and the 75th percentile for one year. The sixth grade rank over four of the five years was in the 30th percentile, but rose to the 67th percentile in the fifth year. For higher-achieving School D, the average third grade rank was in the 70th to 80th percentiles for four of the years and dropped to the 50th percentile for one year; the sixth grade percentile rank was in the high seventies and eighties the last four years.

In low-achieving School C, 31 percent of the responding teachers to the survey had a master's degree or greater, compared to 89 percent of the responding teachers in School D. Forty-six percent of the responding teachers in School C had been teaching in the school five years or longer, compared to 67 percent of the responding teachers in School D. Once again, we see a high-achieving school with teachers that have been in their respective school longer, have more years of experience, are older and have a higher level of education than the teachers in their paired, low-achieving school (see Tables 28-30).

Additional areas of difference between Schools C and D were identified from the interview data, as were areas of commonality. Interviewees from both schools talked about the low aspirations of parents toward education, low parental involvement, "the check" and welfare assistance as a way of life, poor housing conditions, the lack of jobs in the area, changing work ethic and the adverse effects of the home environment on the students.

The format for comparing Schools C and D is the same as for Schools A and B. For each area of difference identified from the interview data, quotes from parents, teachers and administrators from low-achieving School C are presented, followed by quotes from individuals representing high-achieving School D. The survey scales for teachers, students and parents of Schools C and D follow, as with the previous schools.

Interview Data - Schools C & D Areas of Difference

The following topics and direct quotes from the interview data illustrate areas of difference between these two schools.

Difference: Location and Quality of Life

Both communities are located in rural, poverty-stricken areas. School C, the lower-achieving of the two schools, is located in a more isolated, rural area than School D; the nearest shopping area is about 45 minutes away. School D is located 20 minutes from the school district's central office and a small shopping area.

The following quotes from the interview data illustrate the isolation of School C, the low economy of both areas and the quality of life problems in one of the areas.

Table 18. Education Level of Parents of Responding Students. Schools C & D

Parents of Responding Students	Less than High School Education		College or Graduate Degree	
	Father	Mother	Father	Mother
School C (n = 38)	50%	50%	2.5%	2.5%
School D (n = 76)	41%	43%	3.0%	8.0%

n = number of responding students

School C (Rural, Low-Achieving)

"The school is not close to anything. It's right out in the middle of nowhere."

"One of the problems that's unique to coal mining areas...is the economic factors involved. There were no provisions made for quality of life at the time that coal mines developed. Companies built houses for their workers. Those houses did not have indoor plumbing and they put the roads where a road had to be. There was no planning, no sewer system planned. The creeks are open sewers. No one planned to call it home, so they didn't do any long term planning. They couldn't have cared less. The coal companies knew that extraction industries were going to play out and so that pretty well suited management and personnel — that type of outlook. The families came in here in the twenties and thirties with the idea of working a few years in the mines and then going back home. They didn't do that. Many of them died here. But I think that [the lack of planning] contributed a lot to the economic situation and the environmental problems that we are encountering today. A few of us that were here when they turned the stones over, we have been more or less stuck with it."

"People that **do** *work, basically work in the mining industry and they work about two hours away. There are very few working mines in the area. There is some promise of some economic development, but who knows? For some reason we have tied our star to Interstate X and I don't know if it will actually get constructed or not."*

School D (Rural, Moderately High-Achieving)

"There isn't an economy. There may have been a timber business 35 to 50 years ago. The telephone company employs a few people, the Department of Highways employs a few people, the Department of Human Services employs a few people and I would say the Board of Education is the largest employer in the county."

"Thirty years ago there was supposed to have been a four-lane highway put in. The politicians keep fighting it back. They don't want the progress."

"There used to be stores right here on the main road."

Difference: Student Exposure to the Outside World

School C (Rural, Low-Achieving)

"Some kids have never been to X unless they go to the doctor. We've had some kids that have never been to Y. The parents just don't take them. There are some kids that don't even have television. There's no recreation for them except right here on the school grounds."

"One day I was talking about going bowling and they had no idea what bowling was. Maybe they've seen it on TV, but if you haven't had that experience, you can't identify with it. They don't have much life about them. The school's all they have."

School D (Rural, Moderately High-Achieving)

"We have some intelligent kids. They just don't have the opportunities and environment to get much motivation. They see their parents going to the mailbox once a month for the check, then that's the only goal in life that they look for. I've had kids tell me that the most important thing that they look forward to is the first of the month. You know, that's not a future."

Difference: Transfer Students

School C (Rural, Low-Achieving)

"Our student population is fluctuating quite a bit this year. We tend to lose kids to North Carolina and then get them back. We've lost about 10 or 12 that way this year and we just got four of them back the other day."

School D (Rural, Moderately High-Achieving)

"We have a lot of students that transfer in — transfer out. We have a large transient population, about 34 percent. This year we've had 47 kids move out and 38 move in. A lot of those kids that come and go don't have a good educational background."

"Last year I remember one child in particular in the sixth grade and a problem student in the third grade that came in from another school district right at the time of the CTBS test. When the results came back, both were at the bottom. That hurt us on our test results that year."

"How can we be held accountable and responsible for kids who come in to take the test and leave right after, or are here two months and then gone? If you take the stable population and do a graph of the results, I think our scores on the CTBS tests would be a lot better than what they are when you count in all the transients. Many of these children do not stay in one place long enough to form a loyalty or an allegiance or an accountability to anybody, and I fault the parents for that, for moving around."

Difference: Staff Stability

School C (Rural, Low-Achieving)

"Nobody is close to that school, so over the past few years your least senior people have ended up there and then when you get to a termination or reduction in force, then those people get terminated. Somebody else moves in. Right now over there, K-4 grades are all from this side of the mountain. So as soon as they get an opportunity to come back to this side of the mountain, they will."

"Four of the 19 staff probably live within five or ten minutes of the school. Everybody else is driving in. I'm driving over an hour, three teachers drive 45 minutes and several drive about 35 minutes."

"We always said that every new teacher who came into the county was sent to this school to do their penitence and then sent somewhere else. That can create a problem in the school."

"Some come in with the idea that 'I will keep the job for a month or two until some school closer to home, or even a school in my own state, will open up.' That does not lead to a lot of permanence in a community or a feeling of permanence."

"Those people who come in here because there are no other jobs available at the time, they may come in at the start of the school year and stay a month, and then a job will open up near their home and they will bid back out. You may have that go on for half a year or longer, so it certainly does not create a real good atmosphere within the classroom with the children having such a turnover of instructors."

"I think where effectiveness is a factor is when they are traveling those distances with the idea that 'I'm only going to stay here until I can bid out;' then I think that does affect the child. I think it affects the school."

"We have teachers commuting from the other end of the county, which is probably 30 to 45 minutes away. They are commuting over pretty treacherous roads during the winter. Some of them have been here for years doing that and apparently have pretty well adjusted."

"I know that a lot of the people who are here now weren't here three or four years ago."

"This is a young staff. In fact, we've already had three of these people get termination letters for next year. It's bad for morale this time of year, but state law requires it. This county probably hasn't hired a new teacher in years."

"It is hard to attract professionals who are looking for a place to live to this area. Overall, we have substandard housing. Environmentally, it is substandard— there's no question about it. There are no public sewer systems. Your creeks are public sewers. There are no requirements that you have to clean the garbage out of your yard, or that the appearance of your house had to be improved or the grass had to be mowed."

"It's hard for me to stay after school when someone else is riding with me or I'm riding with someone else. I have an hour drive."

School D (Rural, Moderately High-Achieving)

"About half of the teachers are local. They know the area, the community."

"They're a very stable group. Our first grade teacher has been here for eight years, and our second grade teacher has been here 11 years. Our third grade teacher has been here all her school teaching life. Our fourth grade teacher has been here about 12 years, our fifth grade teacher about nine years and our sixth grade teacher about eight years."

"Some of the teachers stay very late, day-in and day-out. Those are the teachers who go above and beyond the call of duty. We have some very dedicated teachers."

"My son has gotten an excellent education in the fifth and sixth grade. I don't think he could have gone anywhere else and gotten anything better. I feel very confident for him to start junior high. They not only taught him the basics and prepared him for junior high, but they've also helped him with his self-esteem."

Difference: Principal Stability

School C (Rural, Low-Achieving)

"I've been under three different principals since I've been here. First one wasn't a principal. He just had the name. The second one was o.k. at first and then carried on like a mad dog. The present principal has just been here this year. He's very supportive. He's informed about things. He goes out of his way to do things for the teachers and to help the kids."

"We had one principal come in, and he cleaned the

school up. It was very nasty. Now we have a new principal. He wants it to stay clean. It was kind of starting to run down a little bit when we were in-between principals. It was like everybody just didn't care."

School D (Rural, Moderately High-Achieving)

"As long as I've been principal, I've always sought the experts, and that's the teachers, the ones that actually work in the classroom, for ideas of what we need to do. I don't dictate anything to them. We've always talked out problems and tried to get them worked out."

"If I feel that there is a problem with something they're doing, a behavior they're exhibiting, then we self-correct. We try to steer each other in the right direction and we talk about what is best and what isn't best. We're here for the kids and that's priority."

"I've been principal of this school for nine years."

Difference: Relations with County Board Office

School C (Rural, Low-Achieving)

"No one ever comes to the school to see about you. There's never— very rarely if ever— a workshop held for special education teachers. We never get to attend a regional, state, national or international meeting. The director and his assistant always go."

"I think probably the most active program you have in the county is your Chapter I reading and math program. Those people do attend, at least state and regional meetings. No one else does."

School D (Rural, Moderately High-Achieving)

"They are a supportive office. When you need anything, they help you. I don't feel threatened by the county people at all. They are in and out of the building all of the time."

"We have the Chapter I coordinator and supervisors and they come out and check on us quite often. And of course they are excellent. You can call them any time you have a problem or concern. They will either let you know right then and there on the phone what you need to know, or if it's something you can't solve over the phone, they're more than willing to come out to the school. They could be here in about 20 minutes. They're very helpful. They hold workshops during the year to go over things that have changed, or are going to change."

"When we needed the air conditioners for the rooms we knew the Board of Education couldn't buy them for us because of the funds. So we raised the money, but they supplied the maintenance workers to come in and put them in and work on them."

Difference: Faculty Expectations of Students

School C (Rural, Low-Achieving)

"It's really difficult to motivate some of these students sometimes. The principal brought paychecks around one time and a little kid asked me how much I made, and I showed him. He told me, 'Well, my mom makes more money than you, and she doesn't even leave the house.' There seems to be a mind-set in the community that 'Mom and Dad have never worked; why motivate me to work?' I think that is something that teachers have had a very difficult time overcoming."

"I question our commitment, I really do. I question our commitment to really overcome those problems that students are having, not only academically but socially, etc. I question our resolve a lot of times. Not only this school system, but in all district systems in underprivileged and economically deprived areas, I question our commitment. A lot of time I think we are guilty of getting the children into the system, getting them through the system and turning out victims of the system. Unfortunately, today there are many children who are the victims of that and are fast becoming more dependent upon the public rolls for their existence because we have not prepared them for anything else."

"I think sometimes we are more interested in making our reports, sending out report cards and going through a formality of education, rather than really getting down to the basic facts of what it takes to get that child through life. I think we're turning out children who at one time could survive in that environment because they could get jobs in the coal mines. They no longer can do that. So I think we as a system are guilty of neglect in that area."

"Every superintendent has been a local person who grew up under that system. I think we commit academic incest by having the same ideas just re-washed and tried again. That may be some of our problem. There are tremendous problems. As long as we see children turned out into the world unprepared to face that world, then I don't think we can claim success as a school system."

School D (Rural, Moderately High-Achieving)

"We expect academic performance of our students. Our expectations are high."

"I want the students to behave. I want them to learn, because most of what they're being taught is what they're being taught here."

"This is the school I went to — this is my elementary school. It's where I was raised. I was raised with ten children and raised very poor. I was raised to work hard, so therefore working hard to get something out of the students is natural. My father and mother did not finish high school, but they were very intelligent people. They felt it was very important for us to get an education."

"Somebody has got to expect some things of these children or they're not going to aspire to anything. If the parents do not get up and go to work every day, if they can sit there and drink their coffee and smoke their cigarettes, but can't buy a book for school, then where else, except in the school, is it going to be instilled in them that there are things more important than sitting on the porch with their feet propped up, smoking and drinking? Where else are they going to get it if they don't get it in school where people care?"

"As a faculty, there is something about us that is different. First of all, we are all very experienced. Experience does carry some weight — when you've been there and back, you kind of know a little bit of what's going to work and what's not. We're continuously in workshops. We go to everything that we can lay our hands on. We go on Saturdays to workshops. We're doing something all the time. Nobody is even the least bit hesitant about learning something new and we share the excitement with each other. I have a master's plus 63 and I could have stopped years ago. I see that personal drive in a lot of folks here."

Difference:
Team Work, Meeting Student Needs and Instructional Programs

School C (Rural, Low-Achieving)

"During the last several years, the emphasis has been on basic skills in K-4. We use a lot of the junior high school kids as assistants. They read to kids and listen to other kids read."

"Up until a year ago, we were like a lot of the county — we were way, way down as far as percentiles on testing. We made a concerted effort to try to get our children better prepared. We began to teach test-taking skills."

"We've developed our own sample test of the kinds of questions that kids should be able to answer and kids actually take these sample tests."

"One thing we did was go through and get an item analysis of the test, question by question, and then indexed it to the curriculum."

"At this school we tested everyone with the CTBS because we are school-wide Chapter 1 and we have to have that information for our program."

"We've got a real good school-wide Chapter I program which makes it really nice because they can serve all the kids instead of just a select few. The school-wide project provides them with a good bit of money for instructional supplies and equipment. This is their third year. For the last two years they have made pretty significant changes in their test scores."

"A lot of what they found, as a staff, was that a lot of kids were taking the test who had not been properly identified for placement for special education, who had not been referred. When a student is scoring in the one percentile, that should be a clue to somebody that something's wrong here."

"We have computers in all the rooms and a computer lab. The lower grades have only four computers and printers, but most have five computers per room. We have a 'server' that they're all connected to."

"The grades were below what the Board thought they should have been. So, we had to write an improvement plan for each student."

School D (Rural, Moderately High-Achieving)

"The one thing that we've tried to do that has helped us academically is that we have tried to identify particular individual student needs. We have tried to look at what information we have on their work and see what it is they need in order to continue."

"I think that we've all worked together for so long that we kind of know what each person expects of us. We have always worked together. We talk to each other. Our principal encourages us to do that, especially at the beginning and end of the year. Find out where we are weak, where the students are weak and what we need to be introducing during the year that we haven't been."

"We try to stress that the individual student is

accountable for what he or she does. We've been trying to do that for years. Also, that they are in charge of their destiny. We try to instill that from kindergarten on. They are in charge of what they do."

"We really form a protective feeling for these students, knowing the area as we do."

"As a staff, we've always felt that we really work hard to get the best we can out of the kids. We take the interests of the students to heart."

"We want children to be contributors to society rather than dependent upon it. My students are told every day that they are loved. They are hugged. I think that's probably one of the keys we have here. These kids know that we love them. If you know someone cares about you and expects something of you, then you will reach a little bit more."

"Each of us feels that every child can learn something. It is our responsibility to take the child where we find it and bring it as far as we can. We devise a curriculum that will meet the needs of the child. And we bond with the students. It's not uncommon to see even those big 6th graders come down the hall with their arms out to give you a hug before you leave in the evening. Quite often I feel that the only time these children get a legitimate hug is from some of us."

"We try very hard. That's why we leave the building exhausted, often come in exhausted."

Note: Programs at School D include Reading Recovery, computer lab (28 computers), peer-tutoring, Pen-Pal Program, Book-Across-America Program, math field day and spelling contest, Chapter I Program, annual testing coordinator and item analysis, practice test-taking skills, parent workshops - Mommy and Me, Home Language and home visits by the Special Education Teacher.

Difference: Business Partnerships

School C (Rural, Low-Achieving)

"We should be developing relationships with businesses in the community, but we don't have them to develop with. Partnerships are extremely difficult to develop in this area because you may have a little roadside market or service station who is struggling to survive, and that makes it extremely difficult. Oddly enough, these are the offsprings of the coal company workers and you would think the coal companies would still be interested in providing partnerships. We have not found that true. Once the coal is depleted, then the interest seems to have been pretty well depleted also."

"Even grocery shopping is quite a task for most families because they either wind up going to X, which is from 25 to 30 miles across two mountains, or going to Y, which is roughly 30 to 35 miles across the mountain. There are a few little quick stops, but as far as doing a complete week's shopping, it requires quite a bit of travel."

School D (Rural, Moderately High-Achieving)

"Our business partner put poles out there for us and painted those and they came over and painted the playground equipment. We haven't really asked our partner for a lot. They give us ice for just about any function, or we go to Hardee's and get ice."

Difference: How to Make the School a Better Place

School C (Rural, Low-Achieving)

"If you could get the parents involved more. I think it could be better if more parents worried about their kids' education."

"We probably have too much money. This school has a three-year budget through Chapter I of a little over a half-million dollars. We've got lots of stuff here. It has been hard for me this year to just fathom how to spend the money we have. I'll figure out how to do it. There are probably lots of things that could be done to make it a better place. One would be to have a stable faculty."

"It would be nice if we could have a stable population where people could plan on being here for a while. I told the superintendent that's the one thing I wish could be possible, but with the declining population and the way state laws are, you have to reduce force. I understand that. Three new people have already gotten letters and they're probably the three most gung-ho people right now on doing some of the kinds of things we want to do. They were the three that came new to us this year and we've spent time trying to work them into the program. Now we'll have to work new people in next year."

"Field trips. To my way of thinking, that would be special for the lower grade students. That would be an excellent learning opportunity, particularly for the ones that haven't had anything like that, that never go out of the area. Your best teaching opportunity is for the

child to actually see, and so many kids are deprived of that."

"I see some improvement in the overall academic structure of the school. I see an opportunity for the staff to increase their base of knowledge and certification. I think the pay has gotten better and you are able to attract a little better quality candidate into the school system than what you were able to at one time. We do have a high special education population in this school. We have four special education teachers — 20 percent of our staff."

School D (Rural, Moderately High-Achieving)

"If there is something that we really need, we all come together and discuss those needs and normally work out a way to get those things. We would like to have a music teacher, an art teacher and a physical education teacher."

"I would like to see more cultural activities come into the area, music and art. More exhibits, more awards, more recognition, some recitals in music. Bring some music into the lives of the children, more than what they get."

"I wish that we could get more parents educated to the importance of education. And I don't know how to do that. We've tried workshops. We have open-house."

"I would like to see a male teacher in here. The principal is a strong figure, but he's not in the classroom."

No Difference: Parental Involvement

School C (Rural, Low-Achieving)

"We're educating basically third and fourth generation welfare kids. Kids that we taught, their kids are there now. And those same families that were on welfare when we were there are still on welfare today. That is a tremendous problem from the standpoint of motivation. It's really tough to motivate those kids. If you ask them what they're going to do, they say, 'I'm going to grow up and draw a check.'"

"We're seeing more children each year who are coming into the school from homes that have to depend upon welfare; there is no work ethic in the home. Families who did have strong work ethics left when the mines and other supportive industries left. It's very difficult to motivate a child for his future when he has not had the motivation at home that work is an ethical thing to do. We have to fight it, so that it doesn't become the predominant mode even in the school environment."

"The education level of the parents is real low. You can probably imagine what that would do to the child. They just don't have any background. I didn't have it when I was growing up. My father and mother could not read nor write until they were 40 or 50 years old. That was typical in this area. We had a parent in today that is about 30 years old. He neither reads nor writes. To me, I can't understand that."

"At one time we had a real close-knit partnership between the home, community and the school. I don't think we have that today."

"Our PTO attendance runs between maybe 25, 30 or 40, depending on who's doing the program. When we have meetings, most of the information or the questions that come up are academically-oriented questions."

"We don't get a lot of parent participation at the PTO meetings because the teachers aren't here and teachers don't stay because the parents don't come."

"Chapter I meetings are pretty well attended. Boosters Club is well attended. We normally have a couple of volunteers in the building at about any time."

"This school has always had a major eighth grade trip. For a community that does have a certain amount of economic problems, during the course of the year, we'll raise between $6,000 and $10,000. The parents painted post offices this summer to begin raising money. It's a real community-oriented place for the most part."

"I would say that the overwhelming majority of our community thinks that this is a pretty good school. That hasn't been the case in the past. Five, six, seven or eight years ago, I used to hear horror stories about this school."

"We have some parents that we have never seen, that have never been in the school. A lot of them live back on the mountain, and it is so inconvenient for them to come in."

School D (Rural, Moderately High-Achieving)

"We've got a PTO, but I'm ashamed to say we have, oh, maybe five parents out to the meetings. There's not much parental support. We've got about six volunteers who come in on a regular basis."

"Most of these children's parents never even finished high school. So you see, there are all these strikes against

them. A lot of times, when parents don't finish school, they really don't see the importance of education. They're not pushing their kids toward getting a good education and they don't instill in them the desire to work hard. When you look at all of the adverse effects that there are, all of the things that are against these kids to start with, what we get out of them makes us a good school."

"We don't have broad financial support from the parents. We limit sales that go home because I know what the community is like financially and how much it can stand. And plus, it's embarrassing to the kids whenever they can't help."

"A lot of parents now are trying to file for Social Security Disability benefits. And that's amounting to about $400 a month if they say their child is mentally unable to do anything or physically or emotionally unable. And they push for that check."

"We have a large number of single-parent families and alternate lifestyle families. There's a large number of these students that, when they refer to mom and dad, it is not their birth mother or father and may not be the same mom and dad in six months."

"I have some students that really need the parent involved with what's going on. Quite often that parent will find an excuse not to come in. Either they feel like they can't handle it, or they want me to handle it."

"Our PTO raised money for the blacktop out there and the basketball nets and the playground equipment. I think PTO raised all the money for the air-conditioner."

Summary of Areas of Difference: Interview Data

Presented in Table 19 is a summarization of the differences between Schools C and D that were identified from the interview data.

Table 19. Summary: Areas of Identified Differences. Interview Data. Schools C & D

Areas of Difference	**School C Low-Achieving 87% Needy**	**School D High-Achieving 87% Needy**
Community Location: Proximity to Central Office	Rural; Isolated 45 minutes; Low Visibility	Rural; 20 minutes Moderate Visibility
Adverse Life Conditions - Students	School Has Not Overcome	School Works Hard to Overcome
Central Office Support	Lacking	Available when Needed
Instructional Leader	Not Identified	Teachers/Principal
Teachers Working as a Team Over Time	No - High Staff Turnover	Yes - Stable Staff
Staff Stability	Drive-In School	Community School
=>5 Years in this School	46% *	67% *
=>Master's Degree	31% *	89% *
Accountability	State Holding School Accountable	Teachers hold Themselves Accountable
Pre-Kindergarten	No	No
Parental Involvement	Low PTO Volunteers	Low PTO Volunteers
Principal/Teacher Relations	Appears to be Supportive; First Year	Supportive, Interactive Team Work
Testing Readiness	Increasing Preparation	Long Term Preparation
Achievement Level	Low - 3rd Grade; Low, but increasing 6th Grade	Moderately High-3rd Grade; Moderately High-6th Grade
Business Partner	No - None in the Area	Yes - Active

* Of responding teachers

Staffs' View of the School
Survey Data
Schools C and D

Schools C and D's ratings from the responding teachers differed on the school's ability to unify school tasks necessary for achievement (school integration), the school's ability to achieve objectives (goal attainment), the school's ability to deal successfully with parents and the community (school adaptation) and in staff morale. The two areas where there was not a significant difference between the views of the staff from the two schools were staff commitment and job satisfaction (see Table 20).

On all six scales relating to the views of the staff, the responding teachers at higher-achieving School D had a more positive perception of their school and themselves than the responding teachers at lower-achieving School C. Also, on all six scales, School C had the lowest, or next to the lowest, ranked score of all the schools in the study relating to the staff's perceptions about the school.

Table 20. The Staff's Perception of the School and Their View of Themselves. Schools C & D

Survey Scale: Staff's Perception	Difference*/No Difference Between Schools C & D
School Integration The school's ability to unify school tasks necessary for achievement	Difference
Goal Attainment The school's ability to define & achieve goals	Difference
School Adaptation The school's ability to deal successfully with parents, the community & change	Difference
Staff Morale Adequate work conditions, harmonious staff relationships	Difference
Staff Commitment Acceptance of the school's values; desire to remain an employee of the school	No Difference
Job Satisfaction The degree to which the teacher likes his or her job	No Difference

* Statistical Difference at $p < .01$

The questions presented in Table 21 represent some of the differences in how the staffs of Schools C and D perceive their schools. The responding teachers in low-achieving School C indicated that productivity is not high in the school, the quality of teaching is not high, students are not prepared in the previous grade and that teachers do not have a high respect for the professional competence of other teachers. The responding teachers in School D had a totally different response on all of these areas, as noted in Table 21.

As previously stated, for questions in the staff survey, the available responses were strongly agree, agree, neutral, disagree and strongly disagree. The response rate of strongly agree and agree to a question were combined to form one rate, and this rate was designated as the positive response. "All" represents the average positive response of all the responding individuals from all the schools in the study, to a question.

Previously, in low-achieving School A, 75 percent of the responding teachers indicated they would leave the school for any other. In low-achieving School C, however, only 31 percent of the responding teachers responded in a like manner. This low response by its teachers appears to be an encouraging note for School C.

Table 21. Staff Differences. Low-Achieving School C & Moderately High-Achieving School D

Areas of Difference in the View of the Teachers	Strongly Agree + Agree		
	School C	School D	All
Teachers in this school have respect for the professional competence of other teachers	39%	89%	86%
As students move from one grade level to the next, teachers generally can be assured that the students were soundly prepared in the previous grade	23%	89%	76%
The communications in this school are good	31%	100%	74%
The climate in this school is poor	54%	0%	16%
The quality of teaching in this school is very high	31%	100%	89%
Teachers in this school are trying hard to promote student achievement	62%	100%	94%
Productivity is high in this school	39%	89%	79%
Faculty members are friendly to one another	54%	100%	88%
I would leave this school for any other	31%	0%	15%
Number of Responding Teachers	13	9	82

Statistical Difference at $p < .01$

The number of teachers responding to the survey represents approximately 87 percent of the classroom teachers for School C (13 out of 15 classroom teachers) and 90 percent for School D (9 out of 10 classroom teachers).

The next section presents the students' perception of School C and School D and their view of themselves.

Students' View of the School and Themselves
Survey Data
Schools C and D

The responding students from Schools C and D had similar responses on five of the eight survey scales relating to the students' view of the school and of themselves. On four of the five scales where there were similar views, it needs to be pointed out that the students from both schools had the lowest, or close to the lowest, scores of all the students in the study on those scales. In other words, the students in these two schools had similar low scores about themselves and their schools.

Differences were noted in the students' perception of the school's ability to organize, coordinate and unify the various school tasks necessary for achievement (school integration), in the school's ability to create and maintain the school's motivational and value structure (school maintenance) and in the student's motivation to attend school and the importance he/she attaches to school (student motivation).

Presented in Table 22 are the survey scales that measured the students' perception of the school and their view of themselves and the areas of difference between the two schools.

The students from moderately high-achieving School D had the highest score of all the students in the study on motivation and the lowest score of all the students on self-reliance. The students from low-achieving School C had the lowest score of all the students in the study on five of the eight survey scales.

Table 22. Students' Perception of the School and Their View of Themselves Low-Achieving School C & Moderately High-Achieving School D

Survey Scale: Students' Perception	Difference*/No Difference Between Schools C & D
School Norms School expects a high performance level	No Difference
School Adaptation School's ability to deal successfully with parents, community & change	No Difference
Academic Futility Relationships among effort and reward	No Difference
Self-Concept Student's ability to master school work, friendships and acceptance	No Difference
Self-Reliance Student's ability and desire to function independently	No Difference
Motivation Student's motivation to attend school & importance of school	Difference
School Integration School's ability to unify school tasks necessary for achievement	Difference
School Maintenance Student and employee loyalty to the school	Difference

* Statistical Difference at $p < .01$

As already noted, the responding students from School D had the highest positive response on the motivation scale of all the students in the study. This is a school that has 87 percent of the students receiving free and reduced-price lunch, a transient student population, low parent education and high family welfare assistance, but a stable, committed staff that indicated they work hard to change attitudes of the students. This scale measures the student's motivation to attend school and the importance that he/she attaches to school. The students at School C had next to the lowest positive response on the motivation scale of all the schools in the study, yet School C has very similar student and family demographics as School D. For these two schools, the difference in student motivation may be related to the difference in the attitude of the school faculty.

Presented in Table 23 are statements that illustrate different views by the students in Schools C and D about their school and themselves. As with School B, in School D we see another high-achieving school in a high-poverty area with infrequent student arguments, strong student pride, strong student respect for teachers and students who feel highly respected.

Seventy-six percent of the students in low-achieving School A indicated there were often arguments between students at their school; now we see that low-achieving School C also has a high (66 percent) response rate on the same question. High-achieving School B had a response rate of 37 percent on student arguments and moderately high-achieving School D, 32 percent.

Table 23. Students' View of the School and Themselves.
Low-Achieving School C & Moderately High-Achieving School D

Areas of Differences in the View of the Students (C & D)	Strongly Agree + Agree		
	School C	School D	All
Students at this school are very proud of the school	37%	79%	75%
There are often arguments between students at this school	66%	32%	43%
Students in this school respect the teachers	50%	80%	77%
Students in this school will do well in the future	55%	82%	80%
There are a lot of places that I would rather be than in school	55%	18%	36%
Students in this school are highly respected	63%	81%	73%
Students in this school trust each other	40%	57%	59%
Students learn more at other schools	32%	16%	17%
Teachers and parents work together in my school	57%	80%	78%
Number of Responding Students	38	76	670

Statistical Difference at $p < .01$

A surprising response was the low positive rate from both schools relating to students trusting each other. Less than half (40 percent) of the responding students from School C indicated that students in their school trust each other and only 57 percent of the students from School D responded in a like manner. Why would students from small, rural schools not trust each other? Does this relate to the culture of the area? With being isolated? With being transient? How does this affect their academic performance? This might be an area that needs additional investigation.

The next section presents the parents' view of Schools C and D as measured by the survey data.

Parents' View of the School
Survey Data
Schools C & D

Parents of moderately high-achieving School D had a more positive perception of their school than the parents of low-achieving School C on all scales of the survey relating to the parents' view of the school. But, statistically, there were no differences in how the parents of School C and D viewed their respective high or low-achieving school.

Presented in Table 24 are the survey scales that measured the parents' perception of the school and the areas of difference or no difference between the two schools.

Of all the schools in the study, low-achieving School C had the lowest positive response on the parents' perception of the school's ability to create and maintain the loyalty of parents, students and staff (school maintenance) and the lowest parent score on the school's ability to deal successfully with the parents, the community and external change (school adaptation). For a school to function effectively over an extended period, there must be a certain sense of parent, student and employee loyalty to the school, its goals and culture (KanLEAD Survey).

Table 24. Parents' Perception of the School.
Low-Achieving School C & Moderately High-Achieving School D

Survey Scale: Parents' Perception	Difference*/No Difference Between Schools C & D
School Integration Work conditions, personnel policies and practices, staff relationships	No Difference
Goal Attainment The school's ability to define and achieve goals	No Difference
School Adaptation School's ability to deal successfully with parents, community and change	No Difference
Maintenance The school's ability to maintain student, parent and employee loyalty	No Difference
Principal Behavior The parents' view of the principal	No Difference

* Statistical Difference at p < .01

Presented in Table 25 are selected questions that illustrate a few of the differences in the parents' perceptions about School C and School D.

Table 25. Parents' Perceptions of the School: Areas of Difference
Low-Achieving School C & Moderately High-Achieving School D

Areas of Difference in the View of the Parents	Always + Usually Agree		
	School C	School D	All
I am satisfied with my child's school	68%	82%	81%
My child's school is highly respected	43%	76%	78%
My child's school has high expectations	54%	75%	75%
My child's school has a clear mission	55%	65%	70%
There is general faculty confidence in the building administrators	61%	79%	74%
Number of Responding Parents	40	72	632

Statistical Difference at p < .01

The number of responding parents from School C was approximately 35 percent. For School D, the parent response rate was approximately 77 percent (72 out of 93 third through sixth grade families). The low response rate by the parents of School C was predicted by the principal of the school before the surveys were returned.

The questions presented in Table 26 illustrate some of the areas of commonality between Schools C and D, as viewed by the responding parents. The response of the parents from School D concerning community support correlates with the interview data concerning the low attendance rate of parents to PTO. The principal of School D stated that he was embarrassed to say that only four or five parents attended PTO meetings.

Table 26. Parents' Perceptions of the School: Areas of Commonality Low-Achieving School C & Moderately High-Achieving School D

Areas of Commonality in the View of the Parents	Always + Usually Agree		
	School C	**School D**	**All**
My child's school has activities to help keep it in touch with the wants and desires of the community	53%	48%	59%
Teachers at my child's school respect parents and attempt to work with them whenever possible	75%	83%	82%
The staff at my child's school really care about him/her	62%	73%	78%
Most of my child's interests lie outside the school	48%	36%	35%
Parents feel pride in my child's school and in its students	58%	78%	80%
Parents at my child's school are very loyal to the school and staff	62%	54%	71%
The development of student self-confidence is stressed at my child's school	50%	70%	70%
The quality of teaching my child receives is high	73%	81%	79%
My child's school is effective in gaining community support for its programs	50%	55%	72%
Number of Responding Parents	40	72	632

Summary: Schools C and D

Schools C and D are located in rural, poverty-stricken areas that have high welfare assistance, low employment opportunities, low education level of the parents, low parental involvement and low work ethic. Approximately 87 percent of the elementary school children receive free or reduced-price lunch.

Low-achieving School C is a drive-in school. A majority of the teachers drive in to the school each day, with many spending up to one hour traveling over mountainous terrain. The school has a history of high staff turnover and of teachers bidding out during the year to schools on the other side of the mountain.

Moderately high-achieving School D has had low staff turnover in the past 10 years. Many of the teachers are from the surrounding area, with others driving in 20 to 45 minutes. Teachers *want* to be at School D. The teachers in School D have more years of teaching experience, a higher level of education and have been in the same school longer than the teachers at low-achieving School C.

Individuals from both schools talked about the low aspirations of parents toward education, "the check" and welfare assistance as a way of life and the adverse effects of the home environment on the students. A majority of the interviewees from low-achieving School C talked about the difficulty of motivating children from the area and gave the impression that the many years of low school achievement could not be helped because of the adverse effects of home life, parents' low regard for education and low parental involvement.

School D, faced with the same adverse problems as School C, appears to have a different attitude about the ability of the students to achieve. It appears they have worked as a team over time in addressing the adverse student environment problems, have expected each child to try to be successful and have conscientiously and deliberately tried to change student attitudes and behavior from kindergarten on. Another top priority of the teachers is to provide a very warm and caring atmosphere where children want to be.

The students in moderately high-achieving School D scored the highest on the motivation scale of all the students in the survey. This appears to indicate that something positive is going on in the school and that one difference between Schools C and D relates to the attitude and effort of the teachers.

Listed below are major areas of identified differences between Schools C and D. The differences are not listed in order of importance, but in the order they were discussed in the text.

Areas of Difference: Schools C and D

- School location and proximity to the school district's central office
- School district central office support
- Identified instructional leader
- Teachers working as a team over time
- Staff stability
- Staff and student accountability
- Principal support over time
- Testing readiness
- Continuity of instructional program
- School climate
- Quality of teaching
- Students working on grade level
- School productivity
- Student motivation
- Loyalty of parents, students and teachers to the school
- Student pride in the school
- Student arguments
- Student respect for the teachers
- Students being respected
- Parent satisfaction
- School expectations

Again, we find that location of the school may have an indirect effect on the success of the school. Individuals from isolated School C indicated that very few people came to the school from the central office or from other places, while School D indicated that help was only 20 minutes away whenever they needed it and individuals from the central office were in the building often.

Teachers have worked as a team over time in School D, hold themselves accountable for the success of the students, have support from the principal and the central office and have a strong bond with each other and with the students. Many of the teachers grew up in the area and identify with poverty, low education of parents and low educational aspirations. They indicated strongly that the school is the last resort for the students if they are to do more than grow up to receive "the check."

Approximately 80 percent of the responding students in School D indicated they were proud of the school, had respect for the teachers and felt they were respected. Student arguments were less frequent in School D, compared to low-achieving School C.

One surprising response from the students in both Schools C and D was in students' lack of trust in each other. There was no explanation from the interview data why this would be so, other than the isolation of School C and the high number of mobile students in School D.

Overall, while parents' perceptions from high-achieving School D were more positive than from School C, there was no statistical difference. It was encouraging to note that the parents in low-achieving School C appeared to recognize that their school could be better, the parents could be more supportive and the quality of teaching could be higher.

Demographics
Schools C and D

Table 27. Number Responding to Survey. Schools C & D.

Group	School C (Low)	School D (Moderately High)
Students	38/50 (76%)	76/90 (84%)
Grades	3rd, 4th, 5th, 6th	3rd, 4th, 5th, 6th
Parents	40/113 (35%)	72/93 (77%)
Teachers	13/15 (87%) Classroom	9/10 (90%) Classroom
Principal	1	1
Total	92	158

Table 28. Number of Years Taught in this Building by Responding Teachers. Schools C & D.

Years	School C	School D
<= 1 Year	15.4%	11.1%
2-4 Years	38.5%	
5-8 Years	38.5%	22.2%
9-12 Years		11.1%
13-20 Yrs.	7.7%	33.3%
=> 21 Yrs.		11.1%
Non-responding		11%

In reply to the question, "How long have you taught in this building?," 78 percent of the responding teachers at high-achieving School D indicated they had taught in the building five years or longer, compared to 46 percent of the responding teachers in low-achieving School C. Eleven percent of the responding teachers in School D did not answer the question.

In years of teaching experience, 77 percent of the responding teachers in School C indicated they had five or more years of teaching experience compared to 100 percent of the responding teachers in School D.

Eighty-nine percent of the responding teachers in high-achieving School D have a master's degree or greater, compared to 31 percent of the responding teachers in low-achieving School C.

Table 29. Education Level of Responding Teachers. Schools C & D.

Education Level	School C	School D
Bachelor's degree	15.4%	
Some graduate work but less than a master's degree	53.8%	11.1%
Master's degree	7.7%	11.1%
More than a master's degree but not a doctorate	23.1%	77.8%
Doctor's degree		

Table 30. Age of Responding Teachers. Schools C & D.

Age	School C	School D
20 - 25 Years Old		
26 - 30 Years	23.1%	
31 - 40 Years	15.4%	22.2%
41 - 50 Years	38.5%	66.7%
51 - 60 Years	15.4%	11.1%
61 Years or Older		
Non-responding	8%	

Seventy-eight percent of the responding teachers in School D indicated they were between the ages of 41 to 60 years, compared to 54 percent of the responding teachers in School C. Eight percent of the responding teachers in School C did not answer the question.

Comparing Schools
E, F & G
(Non-Rural Schools)

The next section presents the same type of information on the three non-rural schools that previously has been presented on the four rural schools. The first notable difference between the rural and non-rural schools in this study is in the percentage of students receiving free or reduced-price lunch. The rural schools have rates of 65 to 87 percent; the non-rural schools have rates of 10 to 16 percent. There is also a difference in parents' education level. The parents in the three non-rural areas have a higher education level than those we have discussed in the rural areas. In fact, the highest-achieving elementary school in the state, as measured over a five year period, has the highest level of parent education and the lowest level of students receiving free or reduced-price lunch of *any* of the schools in the study. Special programs in the non-rural schools are enrichment programs such as music, art, band, gifted and accelerated studies; not programs designed to offset the detrimental effects of family home life, as we saw previously in the rural areas.

Overview of the Non-Rural Schools Schools E, F & G

Presented first is an overview[9] of Schools E, F and G and an explanation of why all three schools were compared. The original plan of this research study was to compare Schools E and F, but due to the results of the survey data on parents' education and other information, this decision was changed to include School G.

From a global perspective, these three schools appear to be similar. All three are small neighborhood schools with good reputations. The majority of teachers at all three schools have many years of experience (averaging about 17 years for each school); the majority have master's degrees or more. A common theme among the teachers at each of the schools is that it is difficult to get a teaching position in these schools because there is so little turnover.

Each of the schools serves children of some of its teachers because the teachers live in the general area where the school is located, and the teachers like their schools well enough to want their children to attend the school. In general, the teachers speak well of the principals, other teachers, parents and students at their respective schools.

Parents, teachers and principals express having high expectations for the students at each of these schools. All of the schools have a high level of parent involvement, with nearly 100 percent having contact with their individual child's teacher and a core of parents being very involved, although in qualitatively different ways. The parents, too, speak highly of the teachers and principals, generally. Beyond the global descriptions, however, when focusing on details, differences emerge which may have an impact on school achievement and/or school climate, and ultimately on school effectiveness. The first issue to be addressed is the comparability of these three schools relative to socioeconomic status (SES).

Socioeconomic Status (SES) of the Schools' Attendance Areas and Achievement Levels Schools E, F & G

From 1992-93 to 1993-94, the percentage of elementary children receiving free or reduced-price lunch was 10 percent for School G, 15 percent for School E, and 16 percent for School F. Over a five-year period (1988-89 to 1992-93), School G was consistently above the 92nd percentile on third grade achievement on Basic Skills; School E had moderately high third grade scores and lower sixth grade scores; and School F had moderately high third grade scores and higher sixth grade scores. Presented in Table 31 is an overview of the three schools.

Parents' Education Level

Both fathers' and mothers' levels of education were different between Schools E and F. In looking at Table 32, one can see that parents at neither school have low levels of education — nearly all have completed at least high school. However, fewer than half of the parents (43 percent of fathers and 38 percent of mothers) of responding students in School E have college or graduate degrees; compared to 64 percent of both fathers and mothers in School F.

Table 31. Percent Needy, Achievement Level, and Enrollment. Schools E, F & G

School	% Needy 2 Years	3rd Grade Basic Skills 5 Years	6th Grade Basic Skills 5 Years	Enrollment 92-93
School E	15%	Moderately High	Lower than 3rd Grade	315 (K-6)
School F	16%	Moderately High	Higher than 3rd Grade	281 (K-6)
School G	10%	High	—	265 (K-5)

Table 32. Education Level of Parents. Schools E, F & G

Parents of Responding Students	Less than High School Education		College or Graduate Degree	
	Father	Mother	Father	Mother
School E (n = 120)	4%	2%	43%	38%
School F (n = 139)	2%	3%	64%	64%
School G (n = 137)	1%	0%	68%	69%

n = number of responding students to the survey

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[9] Dr. Elizabeth Koball contributed significantly to the analysis and presentation of Schools E, F and G.

Looking further at Table 32, it appears that School F more closely matches School G, relative to parents' education. Based on the quantitative analyses, Schools F and G meet the test of comparability, with the exception of mothers' levels of education. Twice as many of the mothers at School G had graduate degrees as those at School F. However, taking into account all higher levels of education, the percentages are quite comparable; for School G, 69 percent of the mothers had bachelor's degrees or more, and at School F, 64 percent had bachelor's degrees or more.

The interview data suggested many similarities between Schools E and G; the SES data and the interviews suggested other similarities between Schools F and G; and the school lunch program data suggested similarities between School E and F. Therefore, it appeared that the best approach was to compare and contrast all three schools on the survey and interview data.

Parents, teachers and principals mentioned that there were many doctors and lawyers among the families at Schools F and G. Both schools were described as being upper-middle class, with evidence of affluence. On the other hand, the interviews emphasized that the children who attend School E are from middle-class families. For this school there was no talk of affluence.

The impact of these differences can be seen in funding for additional resources, such as field trips and facilities. Three examples stand out:

First, quotes from a parent from School F:

"Just a few weeks ago, I was called to raise money — $40 per child for 72 children — for a field trip to the Kennedy Center. The person who was going to fund it backed out, and they had two weeks to raise this money and they gave me a certain amount to raise. And I called the mothers, and I got it...But I said, "Could you pay for your child's ticket and the ticket of another child? (there are a few children in the school whose parents could not afford the tickets)...But we were able to get the money in a couple of weeks."

Second, the interviewer commenting on Schools F and G: "They appear to have all the bells and whistles."

Finally, Schools F and G have a full supply of computers for each classroom, whereas School E has only three computers per classroom.

Organizational Structure Schools E, F & G

A second issue in the comparability of the three schools is organizational structure. Schools E and F look very similar. Both schools include kindergarten through sixth grade and both schools departmentalize fourth through sixth grade. Both schools even suggest the same rationale: to prepare their students for junior high school. On the other hand, School G does not include the sixth grade, nor does it departmentalize the fourth and fifth grades. Interestingly, the children from School G go to a middle school after the fifth grade, so the perceived need to prepare students for junior high school does not exist.

Even though SES may predict similar achievement scores of the third graders at Schools F and G, the differences in organizational structure may alter that prediction. Looking at the achievement scores for the past five years, the third graders at School F consistently have lower achievement scores than the third graders at School G. However, the achievement scores of the third graders at School E, where SES is lower, are nearly as high as those from School G and were, in fact, slightly higher in the last year for which CTBS scores were available.

Next, the focus will be on the principals and particular programs and practices discussed during the interviews.

Principal Behavior Schools E, F & G

In the interviews, there were only accolades expressed by both teachers and parents at Schools E and G about their principals. Both principals were seen as accessible, visible, interactive, caring, dynamic leaders. These comments were reflected in the very high survey scale scores dealing with principal behaviors. The principal of School F also received positive ratings; just not as high as the principals from the other two schools. The following comments reflect the somewhat lower ratings of the principal at School F:

"...sometimes I think there are students that maybe need testing for special services. And it seems to be difficult to get them tested. The county tests, but the principal recommends. I don't know. I know he has looked at scores of ones who I think would qualify, but that's the end of it."

"Usually, he's not in the classroom very much. We sort of twist his arm, or that kind of thing, to get him to come in here and sit down and read....I would like for him to be more involved. I have had some discipline problems, and I feel like we've dragged it out too long...his viewpoint is that the parents are trying, and we should give them more time, and I'm saying, 'I'm tired. I'm tired of dealing with this...' and at this point, I'm worn out...And then I just start questioning myself

because I don't get the kind of backup that I would like. You know, I would like for a line to be drawn."

"People think that he would do better with older kids. He's not a 'hugging-kid' type, you know. And when you're talking about an elementary school, you think of school people who are 'huggy,' 'kidsy,' kind of people. And he doesn't exactly fit that stereotype. But he is definitely an achievement-oriented type of principal."

It is important to note that these were the only negative comments made about the principal at School F. All of them have to do with his communication style, not the overall quality of his work. He was seen as a good administrator and definitely conveyed that he cared about the faculty and children at the school. He was very focused on academic standards and had high expectations of his faculty and students. He was not, however, described as accessible and friendly, as were the other two principals.

In summary, all of the principals were perceived as more than competent. Their emphases were different: the principal at School G seemed to emphasize communication and academics about equally; at School E, the principal seemed to emphasize communication followed by academics and art; and at School F the principal seemed to emphasize academics followed by communication.

Presented in the next section are the results of the survey data relating to the perceptions of staff, students and parents about the schools. The first area is the staffs' view of the school, followed by the students and the parents.

Staffs' View of the School
Survey Data
Schools E, F & G

The responding teachers from Schools E, F and G viewed their schools similarly with respect to the school's ability to unify school tasks necessary for achievement (school integration), to achieve objectives (goal attainment) and to deal successfully with parents and the community (school adaptation). Also, there were no significant differences among the schools on staff commitment and job satisfaction. There was a difference on staff morale and principal behavior among Schools E, F and G.

School E had the highest score of all seven schools in the study relating to the teachers' view of the principal, followed by School G, School D and School F.

Presented in Table 33 are the staff survey scales and the areas of statistical difference or no difference.

Table 33. The Staffs' Perception of the School and Their View of Themselves. Schools E, F & G

Survey Scale: Staffs' Perception	Difference */No Difference
School Integration The school's ability to unify school tasks necessary for achievement	No Difference
Goal Attainment The school's ability to define & achieve goals	No Difference
School Adaptation The school's ability to deal successfully with parents, the community & change	No Difference
Staff Morale Adequate work conditions, harmonious staff relationships	Difference
Staff Commitment Acceptance of the school's values; desire to remain an employee of the school	No Difference
Job Satisfaction The degree to which the teacher likes his or her job	No Difference
Principal Behavior Those behaviors which add to the effectiveness of the school	Difference

* Statistical Difference at $p < .01$

The scores on staff morale by the responding teachers of Schools E, F and G were the most positive of all the schools in the study, with the highest score from School E, followed by School G and then School F, as noted by the rankings of the schools in Appendix A. The major differences among the three schools on staff morale related to faculty workload, sufficient social activities for the faculty and communication with administrators. The questions presented in Table 34 help to illustrate differences in staff morale among the three schools.

Table 34. Staff Morale. Schools E, F & G

View of the Teacher **Staff Morale**	**Strongly Agree + Agree**			
	School E	**School F**	**School G**	**All**
The workload is adequately balanced among the faculty members of this school	85%	91%	82%	78%
There are sufficient social activities for the faculty	100%	55%	64%	41%
The building administrators encourage suggestions from the faculty	100%	82%	100%	83%
There are open lines of communication between faculty and the building administrators	100%	82%	100%	79%
There is general faculty confidence in the building administrators	100%	82%	100%	72%
Number of Responding Staff	13	11	11	82

Although there are differences among the schools on some of the questions, the overall staff morale is high for all three schools. The lowest rating is on social activities for faculty. The differences among these three schools on questions that relate to staff morale are in contrast to the differences that occurred between the previous high and low-achieving rural schools, where several zero scores were noted.

Parents' View of the Schools Survey Data Schools E, F & G

On all scales measuring parents' perceptions of the school, School F received significantly fewer positive scores from the parents than Schools E and G, despite the fact that all of the parents and teachers who were interviewed said they thought that School F was a good school. The ranking of the three schools on the survey scales (see Tables A-18 through A-22 in Appendix A) gives an indication of the parents' perception of School F, relative to the parents' perception of all the schools in the study.

Table 35. The Parents' Perception of the School. Schools E, F & G

Survey Scale: Parents' Perceptions	Difference* /No Difference
School Integration The school's ability to unify school tasks necessary for achievement	Difference
Goal Attainment The school's ability to define and achieve goals	Difference
School Adaptation The school's ability to deal successfully with parents, the community and change	Difference
School Maintenance The school's ability to maintain student, parent and employee loyalty	Difference
Principal Behavior The parents' view of the principal	Difference

* Statistical Difference at $p < .01$

The differences in the parents' view of the three schools appear to be more a difference between School F versus Schools E and G. The greatest differences were in the parents' view of the principal, the parents' perceptions of work conditions, personnel policies and practices and staff relationships (school integration) and their perception of the school's ability to define objectives, mobilize resources and achieve desired ends (goal attainment). Statements presented in Table 36 illustrate some of the differing views of the parents in the three schools about their respective school and principal.

On the 15 questions related to principal behavior, approximately 95 percent of the responding parents in School G had high positive responses for each question; about 90 percent of the responding parents in School E had high positive responses; 50 to 60 percent of the responding parents in School F had high positive responses.

Table 36. Parents' Perceptions of the School and the Principal. Schools E, F & G

View of the Parent	Strongly Agree + Agree			
	School E	School F	School G	All
I tend to identify with my child's school and strongly support it when it is attacked	86%	65%	92%	77%
I am satisfied with my child's school	89%	77%	93%	81%
My child's school is highly respected	99%	79%	94%	78%
If I could, I would send my child to another school	8%	21%	6%	14%
Teachers at my child's school respect parents and attempt to work with them whenever possible	88%	68%	94%	82%
Student creativity is encouraged and rewarded in my child's school	93%	74%	87%	79%
In my child's school, all students are treated with respect — even those from poor backgrounds or those with limited intellectual ability	81%	48%	82%	68%
The principal shares decision making with parents when appropriate	92%	48%	95%	77%
Number of Responding Parents	95	101	159	632

For the statement, *"all students are treated with respect, even those from poor backgrounds or those of limited intellectual ability,"* 48 percent of the responding parents from School F always or usually agree. This was the lowest positive response rate of any school in the study on this question. The next lowest response rate was from the parents of low-achieving School A, with 57 percent. Why would over half of the responding parents from School F feel that all of the children are not respected equally? This is another area that would need additional inquiry.

Parent Involvement - Interview Data

All three schools have outstanding parent involvement. Each has a core of parents who are very active, a substantial number who help with tutoring and/or reading to the students and a vast majority who have individual contact with their child's teacher. The involvement has a slightly different flavor at each school. In School G, the parents serve on numerous committees that deal with nearly all aspects of the life of the school. Their voices are heard and listened to. The principal of School G writes the mission and gives the charge to each committee, and the committee then acts independently in carrying out the mission. Essentially the parents respond to the school's initiative. The superintendent summed it up, as follows:

"The teachers are the professionals in terms of education, and the parents are the supporters of that effort. But there is an equality of purpose. It's not an equality of process and procedure, it's an equality of purpose."

At School E, the parents seem to initiate and then ask for the teachers' input. They also respond to the teachers' requests, but they seem to initiate more often than the parents at the other two schools.

At School F, the parents are very involved, but in more traditional ways, primarily responding to requests for fund raising, taking care of school celebrations and such. They do not seem to participate as actively in fundamental decision making at the school. This, too, may be a factor in the parent climate scale differences.

Students View of the School and Themselves
Survey Data
Schools E, F & G

All of the teachers and parents interviewed at the three schools expressed concern and caring for the children at their schools, especially at school E. At School F there was some concern expressed about the students being too competitive and that there might be too much pressure. At both Schools E and F, concern was expressed about departmentalization possibly being more than fourth graders can handle, but this concern was mentioned only once at each school. For the most part, teachers and parents felt that their children were happy to be at their school, especially the teachers at School E.

The students in the high and low-achieving schools in the rural areas of this study have a higher positive perception of their school and themselves on several of the survey scales than non-rural Schools E and F, noted by the rankings of the schools in Table 37.

Table 37. Students' Perception of the School and Their View of Themselves. Schools E, F & G

Survey Scale: Students' Perceptions	Difference* / No Difference On Scales	Rank** Schools E	F	G
School Norms School expects a high performance level	Difference Interaction*** School/Gender	4	3	1
School Adaptation School's ability to deal successfully with parents, community & change	Difference Interaction*** School/Gender	7	5	1
Academic Futility Relationships among effort and reward	Difference Interaction*** School/Gender	4	5	1
Self-Concept Student's ability to master school work, friendships & acceptance	Difference	5	2	1
Self-Reliance Student's ability and desire to function independently	Difference	6	3	2
Motivation Student's motivation to attend school & importance of school	Difference	7	5	3
School Integration School's ability to unify school tasks necessary for achievement	Difference Interaction*** School/Gender	4	5	1
Maintenance Student and employee loyalty to the school	Difference	5	4	1

* Statistical Difference at $p < .01$
** Rank - compared to all seven schools in the study.
*** See Glossary for definition of interaction.

The two high-achieving schools in the rural areas scored higher on the student motivation scale than all three of the non-rural schools. This raises two questions, "Could student motivation be a major factor in schools being effective in high poverty areas?" and "Do students in high poverty areas have to have a higher level of motivation than students in other areas in order to be successful?"

The student surveys produced some puzzling results. The surveys were administered to all third, fourth, fifth and sixth grade classes in the schools in the study. This means that for Schools E and F, approximately three-fourths of the responses are those of intermediate level students, and one-fourth are from primary students. At School D, approximately two-thirds are from the intermediate level, and one-third from the primary level. So the results disproportionately reflect the attitudes and perceptions of the intermediate students. The responses by boys at School E were significantly less positive than those of the girls at School E, and less positive than the responses of boys *and* girls at Schools F and G, on four of the scales: school norms, school adaptation, academic futility and student motivation. The boys at School E had negative responses to the motivation items.

Because of the low positive response from the boys at School E, additional variables such as age, race, grades and parent education were investigated to see if the low response rate could be explained. None provided an explanation, although age also was a factor. Older boys from School E had less positive responses than younger boys and all girls, generally.

Presented in Table 38 are questions relating to the motivation scale that will help to illustrate the different perceptions of the students from School E, F and G about the school and themselves. The responses for School E are presented for boys and girls, since the analysis of the data indicated there was a significant difference between the two within the school.

In School E, there also appears to be a difference in how the third-fourth grade boys and the fifth-sixth grade boys responded to some of the questions, plus a difference in how the girls responded relative to the boys response, as demonstrated in the examples below.

Table 38. Students' View of the School and Themselves. Schools E, F & G

View of the Student	Strongly Agree + Agree				
	School				
Motivation Scale	E* Boys/Girls		F	G	All
School is very enjoyable to me.	24%	32%	58%	60%	61%
My friends like to go to this school.	35%	63%	66%	77%	66%
School is important to me.	57%	85%	83%	88%	78%
Number of Responding Students	66	54	139	137	670

* For School E, responses by boys and girls.

Question: Students in this school respect the teachers. School E by gender (Strongly Agree + Agree).

School E	3rd & 4th	5th & 6th	All Schools
Boys	79%	57%	75%
Girls	76%	88%	78%

Question: I learn things very easily in school. School E by gender (Strongly Agree + Agree).

School E	3rd & 4th	5th & 6th	All Schools
Boys	88%	52%	65%
Girls	48%	67%	64%

Question: My friends like to go to this school. School E by gender (Strongly Agree + Agree).

School E	3rd & 4th	5th & 6th	All Schools
Boys	46%	29%	59%
Girls	62%	64%	72%

Question: Students in this school want to do well. School E by gender (Strongly Agree + Agree).

School E	3rd & 4th	5th & 6th	All Schools
Boys	92%	69%	84%
Girls	81%	84%	85%

On the academic futility scale (effort and reward), the girls of School E have the second highest positive score of all the schools in the study and the boys have the lowest positive score of all the schools. This is noteworthy, as students who drop out of school are typical examples of individuals who do not perceive the current effort to be linked to future rewards (KanLEAD).

Academics and Enrichment Schools E, F & G

This section will begin with a description of a program for intermediate students at School F. Following that will be a broader description of academics and enrichment at all three schools.

A sixth grade language arts teacher comments about the intermediate-level math program at School F:

"...in math, our math scores are always very high. She (the math teacher) teaches the same students in fourth, fifth and sixth grade. And she knows their weaknesses. She knows their strengths and what they need to work on. She knows what they've had last year and she can build on that. And I think that's beneficial."

The math teacher adds: *"I believe in doing more than the academics. I don't think you can focus just on academics. But I think that has to be the priority because that's what we're here for. And we do stress academics here...I'm working with a team here, really. We all work together...I've taught math three consecutive years to the children. So I get to know each child really well. I only get to know that child in math — that's true. And some people might think that is a drawback to what we're doing, but I don't think that is true. When we first started this, I did have some reservations about it. But after a couple of years, I did not have that feeling at all. It changed. But when we first started it I thought...how will this affect the children when they have one teacher in math for three consecutive years? Is that going to be detrimental to them? Or is it going to be a positive thing? I think it has been positive...the children work real hard. They know what I expect. I'm firm but fair. I have really high expectations of these kids. I don't ever feel that I expect more than they can give me, but I do have high expectations. And I'll work with them to pull up, to remediate, to go beyond to whatever...I think it's successful. My sixth graders do well...My kids have math one day a week on the computer. And I think that's one reason that my test scores are high. Because if there's a need, and I'm teaching it one way, the computer may present it a different way, and it may click. Of course, you use different techniques and different things to get to the children, but I think reinforcing constantly ...reinforcing through the computer program is good."*

She continues talking about departmentalization at School F. *"...departmentalization is the reason why the children go up rather than down. Because you have really strong people in every one of the areas, that have certification for the junior high school. So, that makes a difference...I think that has a big effect on the scores, because if you have a person — since I'm in math, I can speak for math — if you have a person who's only had six hours in math before they go into the elementary classroom...and that's all that's required, as opposed to someone who has 26 hours and continues to go on...then would you not expect the scores to go up? And I'm not saying that all of these hours makes you a better teacher necessarily, but I think it certainly helps. Plus, the fact that you accelerate your children — that's the biggest factor I think. We have children in the sixth grade who take pre-algebra. We have children in the sixth grade who are finishing seventh grade math. And we have children in the sixth grade who are finishing sixth grade math...and the first thing that I do when the children come to me, I look at their test scores. And those who have below the 40th percentile—that is what we are supposed to do—those children need remediation right away. And that is where you begin. Those that are in the 90th percentile, maybe they could handle some acceleration. Or the 80th percentile. They go beyond level..."*

This teacher has been at School F for 23 years. She comments, *"I've had six principals since I've been here, and each person has had a very positive quality about himself or herself. They've all really been interested in children, and they want the school to be the best that it can be. And there have been good things about every one of them. They're all different, of course. And you have to learn, when you have that many principals, to flow with the tide, so to speak."*

All of these schools stress academics and various types of enrichment programs, but there are differences in emphases and in the types of enrichment. For example, School F seems to have numerous field trips; School G seems to have enrichment integrated into its regular program; School E seems to have major programs led by the parents. Both Schools F and G have programs for gifted and talented children, accelerated programs, and interviewees talk about language arts, social studies, math and science about equally. All three schools have parents and members of the community come into the schools to tutor or to read to the students.

School E seems to focus almost exclusively on language arts, reading and the arts. In fact, in 48 pages of interview transcripts, only one sentence mentioned a math-related subject, and that was in reference to one of the school's business partners providing a banking program. There's no doubt that all of the subjects are taught at School E, but focus on math seemed to be minimal. However, there was also no mention of math scores being particularly low. The teachers and principal at School E go over test results at the beginning of each school year. They decide what areas need a special focus, and then plan for the year how they will address special problems that they see in the tested areas. Their focus for the year of this study was on spelling and language arts, and that could be why there was so little talk of math and science.

A very active group of parents, the Parent Enrichment Group (PEG), bring an extensive art program to School E. In the year of the study, two parents wrote for grants from funding agencies such as the National Endowment for the Arts and the National Endowment for the Humanities and received twelve thousand dollars to bring artists into the school. A parent describes the program:

"...what we try to do is to bring history to life, show the kids how art and music have come out of different periods. That way you can teach them all aspects of the curriculum, but in a new way. So we decided to start with the Colonial year. Two years ago, they did a similar year called the Renaissance Year and had artists come in. So, we went through the West Virginia Artists Book provided by some of the state funded organizations, and decided what we would like to go for. So this year we had a Native American week where we brought in the Appalachian Indian Society, and we have these people come in for an entire week and talk to the kids about Indian heritage. And that was really enjoyable. The parents get involved."

"We do crafts in the classroom, have the arts come in. And the kids were involved in pottery making and all kinds of stuff. And the art teachers that are here help with it. Everybody is in this one big thing. If you noticed, the mural out on the wall was done by the PEG. It is the span of time that we've done so far, starting with Columbus, the Renaissance Year and the Colonial Year. And then we've done five weeks with Kate Young, the actress. She's helped the children play-act and talk about a lot of colonial history and all. And we had an editorial cartoonist in, J. D. Williamson. He talked a lot about Ben Franklin, because Ben Franklin was the first editorial cartoonist in the colonial period. The younger kids learned to make Ben Franklin moving shapes and the older kids did editorial cartoons with Bill Clinton and the Health Plan. And it's amazing, you know, what came out of it."

"We had a three week residency with a poet, Debbie McNamara...and she came in and the kids wrote poetry. And through our funding with PTO, we're publishing a poetry book...so all the kids are going to have a published book with their poems in it...And that's just what we've done this year."

The teachers and principals in all of the schools seem to be very conscientious about time-on-task. There was a hint that perhaps the enrichment programs at School E had disrupted classtime somewhat, but the faculty senate seemed to have worked that out.

At School G, the principal and faculty use national curriculum guidelines to plan some of their programs. For example, The National Council of Teachers of Mathematics Standards recommends, as one of the standards, to incorporate communication of mathematics in the math curriculum. Interestingly, the principal looked to nearby colleges for a speaker for in-service training on math and communication, but none of the colleges felt comfortable with the topic. One of the colleges did an ERIC search and found an article on the topic. She comments:

"..at Faculty Senate we took — we usually take one hour for the meeting and one hour for staff development, total of two hours — we took the article and put the teachers in pairs and they read the article and then reported to the group so we had a little bit of input of our own." This school also has parents, with special expertise, come in to provide in-service training.

School Concerns

Several of the interviewees from School F talked a great deal about 'riffing' and 'bumping' because of changes going on in the county. A new middle school was being built, which meant that School F would lose its sixth grade entirely, and in turn would lose two of its respected teachers. One teacher was going to the new middle school because she wanted to continue to be able to teach higher levels of math and felt that without the sixth grade she would lose that opportunity. The other teacher had been cut because she had the least amount of experience in this county. She had 14 years of experience in another county and was qualified to teach intermediate and secondary grades, but experience in this particular county was the primary consideration. She was later rehired for a Chapter I pre-school position.

Additionally, one parent commented about the strike that occurred a few years earlier:

"I think what had been a very cohesive, friendly group, I think that put a real knife into it. And, of course, since then, because of all the downsizing and having to make cuts and lay people off, and people aren't sure whether they're going to have their jobs...and so that brings a lot of tension. And there

have been a lot of changes in the make-up of this staff...And it's not just the teachers. It's some of the support services— the counselors. You never know who the counselor is going to be that year because they are always changing. We used to have a wonderful full-time counselor here. But because she didn't have tenure or whatever— seniority— I hate that word. But she had to move, and she took on three different schools. She wasn't even half-time anywhere. She was a third here and there and everywhere. She added a lot to this school when she was here full-time."

The principal at School F also expressed frustration with the downsizing and with her inability to select teachers and staff, based on specific qualifications, because of the seniority system. School G provides a contrasting story. It is housed in two buildings, and there were plans to close one of the buildings and leave only kindergarten through third grade in School G. The superintendent of the school district reflected:

"And the community— you know about school closing in West Virginia. It can be a wild and crazy trip. The communities got married is what happened. They said, 'No, we would rather have our own K-5 building. We will agree to the closure of both of our buildings. We would like to join.' And so we put together this hybrid kind of thing...it just sort of evolved. They were saying, "How can we prevent the closure, and can we join?' This was not the school people, it was not the principal, it was the parents, the members of the community."

The teachers reported having been consulted about the new building relative to their thoughts about how the building should be designed and furnished.

Summary
Schools E, F & G

In all three schools a majority of the teachers have at least 17 years of teaching experience, have been in their respective school five years or longer and have a master's degree plus additional hours. All of the schools have a history of being successful and all are seen as desirable places in which to teach. Teachers want to be at these schools and faculty turnover is low.

In Schools F and G over 60 percent of the parents of responding students have a college or graduate degree. In School E, 43 percent of the fathers and 38 percent of the mothers of responding students have a college or graduate degree. All three schools have low levels of needy students: 10 percent for School G; 15 percent for School E; and 16 percent for School F. Parent involvement is high in all three schools.

Over the five-year period examined, third grade achievement was above the 92nd percentile for School G; School E had moderately high third grade scores and lower sixth grade scores; and School F had moderately high third grade scores and higher sixth grade scores.

From the interview data there appeared to be more commonalities among the three schools than differences, but the survey data indicated the three schools had a greater number of differences than the paired rural schools in the study. Differences were noted among the three schools on all of the student and parent survey scales.

One identified area of difference was in the principals and their style. The principal at School G seemed to emphasize communication and academics about equally. School E has had three different principals in the last five years. The present principal emphasized communication, followed by academics and art. In School F the principal seemed to emphasize academics and then communication.

Eighty-two percent of the responding teachers in School F indicated there are open lines of communication between faculty and the building administrator, compared to 100 percent of the responding teachers in Schools E and G. Communication between faculty and the building administrator was also an area of difference between the high and low-achieving rural schools.

Another difference among the three schools was in the types of enrichment programs offered at the schools. School F had numerous field trips; School G seems to have enrichment integrated into its regular program; and School E seems to have major programs led by the parents. Both Schools F and G have programs for gifted and talented children, accelerated programs and both talk about language arts, social studies and math and science about equally. School E seems to focus almost exclusively on language arts, reading and the arts. A Parent Enrichment Group brings an extensive art program to School E.

One of the major reasons for looking at Schools E and F was because of the difference in the sixth grade achievement levels. One reason for the difference may be due to the strong teachers in the upper grades at School F. Both schools are departmentalized in the fourth through sixth grade, but the teachers in School F have junior high school certification. The math teacher for the upper grades in School F has 26 hours of math. School F has children in the sixth grade taking pre-algebra and others who are finishing seventh grade math.

In 48 pages of single-spaced interview data for School E, only one sentence mentioned a math-related subject, but this could be because their special problem focus for the year was on spelling and language arts.

The second identified reason for a difference in the sixth grade achievement scores in Schools E and F may be due to the difference in the attitude of the boys in the two schools. As was noted, the boys in School E had the lowest responses on motivation of all the students in the survey. From the available data it could not be determined why the boys from School E had such low scores. It did appear that the attitudes of the boys in the upper grades were less positive on many of the questions than the attitudes of boys in the lower grades in School E. What we do know is that in School E the achievement scores decline in the sixth grade, compared to third grade; the scores increase in School F.

Presented in Table 39 is a summary of areas of interest about Schools E, F and G.

Table 39. Summary: Areas of Interest, Interview Data. Schools E, F & G

	School E **15% Needy**	**School F** **16% Needy**	**School G** **10% Needy**
Community	Non-rural	Non-rural	Non-rural
SES	Lower/middle	Professional	Professional
Student Adverse Conditions	Enrichment Programs	Becoming a Concern	Enrichment Programs
Central Office Support	Concern: Combining Schools	Discord Over Who Can Be Hired	Supportive Not an Issue
Instructional Leader	Teachers/Parents	Teachers/Principal	Principal
Teachers Working as a Team Over Time	Strong Faculty Senate	Strong Math & Science; Perfunctory Faculty Senate	Use Faculty Senate to Plan and Communicate
Staff Stability	Very Stable	Stable	Stable
=>5 Years in this Building	85%	55%	55%
=>13 Yrs. Exp.	92%	63%	100%
Master's Plus	62%	64%	64%
Accountability	Parents/System	Parents/Principal	Parents/Principal
Parental Involvement	Very High	High	Very High
Principal/Teacher Relations	3 Principals Last 5 Years; Strong Principal/Faculty	Pockets of Strong Teachers	Strong Respect for Principal
Testing Readiness	Guides Changes	Aware/Not a Big Issue	Aware/ Not a Big Issue
Achievement Level	Moderately High 3rd Lower 6th	Moderately High 3rd Higher 6th	High 3rd
Business Partner	Yes - Moderate	Yes - Active	Yes - Active

With these three schools, the following issues appear to be worthy of further investigation:

- the influence of the state's approach to seniority on school climate and achievement;
- the effects of departmentalization for intermediate level students;
- the effects of future transfer to middle school, as opposed to junior high school, on elementary school programs;
- mathematics education;
- the effects of different types of parent involvement;
- the faculty senate concept, when used maximally, seemed to have a very positive effect on faculty morale, but it could not be determined if that was a principal effect or a faculty senate effect. That needs further investigation;
- the effect of standardized testing on teaching practices and programs;
- why the attitude of the boys in School E is less positive than other schools in the study;
- effect of hiring and other personnel practices on school climate and achievement.

Demographics: School E, F & G

Table 40. Number Responding to Survey. Schools E, F & G.

Group	School E	School F	School G
Students	120	139	137
Response	65%	89%	97%
Grade(s)	3rd-6th	3rd-6th	3rd-5th
Parents	95	101	159
% Responding	65%	66%	86%
Classroom Teachers	13/15	11/15	11/18
% Responding	87%	73%	61%
Principal	1	1	1
Total	229	252	308

Table 41. Number of Years Taught in this Building by Responding Teachers. Schools E, F & G.

Years	School E	School F	School G
<= 1 Year		18.2%	
2 - 4 Years	15.4%	27.3%	45.5%
5 - 8 Years	30.8%	18.2%	9.1%
9 - 12 Years	7.7%		
13 - 20 Years	30.8%	9.1%	36.4%
=> 21 Years	15.4%	27.3%	9.1%

Eighty-five percent of the responding teachers from School E indicated they had taught in the building five years or longer compared to 55 percent of the responding teachers from both Schools F and G.

In years of teaching experience, 100 percent of the responding teachers in School G indicated they had 13 or more years of teaching experience; 92 percent of the teachers in School E and 63 percent of the teachers from School F indicated the same. In the three schools, *all* of the teachers had more than 5 years teaching experience.

Table 42. Education Level of Responding Teachers. Schools E, F & G.

Education Level	School E	School F	School G
Bachelor's degree			
Some graduate work but less than a master's degree	30.8%	18.2%	27.3%
Master's degree	7.7%	18.2%	9.1%
More than a master's degree but not a doctorate	61.5%	63.6%	63.6%
Doctor's degree			

There is no difference in the education level of the responding teachers from Schools E, F & G ($p < .05$, Fisher's LSD Comparison, ANOVA).

Table 43. Age of Responding Teachers. Schools E, F & G.

Age	School E	School F	School G
20 - 25 Years Old			
26 - 30 Years			
31 - 40 Years	53.8%	45.8%	27.3%
41 - 50 Years	23.1%	18.2%	45.5%
51 - 60 Years	23.1%	18.2%	27.5%
61 Years or Older			
Non-responding		18%	

Seventy-three percent of the responding teachers in School G indicated they were 41 to 60 years old; 46 percent of the teachers in School E and 36 percent of the teachers in School F indicated the same age range. On an average, the teachers in School G are significantly older than the teachers in School F ($p < .05$, Fisher's LSD Comparison).

Eighteen percent of the responding teachers in School F did not answer the question.

Global View of Student Responses

The student responses across the diverse environments in this study indicate that even though the schools and communities are different, the relative perceptions of a majority of the students are about the same concerning school and student work standards, expectations for a high performance level by the school and the desire to do well in school. A majority of the students surveyed feel that they are expected to work hard, that they try hard to get good grades on tests and that it is important to do well in school. In general, students from all of the schools in the study expressed positive perceptions of their schools and of themselves as students. It should be kept in mind that the students, as well as parents and teachers, answered each question relative to their school and their personal background.

Students surveyed in both high and low-achieving schools appeared to feel strongly that their respective school expected students to work hard. There were no differences between the paired schools on the statement: *Students are expected to work hard in this school.*

Of the 665 responding students, 82 percent "always agree" that their school expects the students to work hard; an additional 12 percent "usually agree." Overall, 94 percent of the responding students agreed that their respective school expected the students to work hard.

Table 44. Students are expected to work hard in this school.
Percentage of Students "Always" + "Usually Agree"

Needy Level	Achievement Level	School	Percent	n = 665
16%	Med. High - High	F	97.1%	
10%	Highest	G	97.0	
65%	High	B	95.1	
66%	Low	A	94.8	
		==============		94.0% Average
15%	Med. High - Low*	E	93.3	
87%	Med. High	D	88.0	
87%	Low	C	81.6	

* Medium high achievement level in third grade; decreasing achievement level in sixth grade.

Differences: Overview of Student Responses

From the students' perceptions of school life in their respective schools, the following areas were singled out as having the greatest differences between the high and low-achieving schools: student arguments, student pride in the school, respect for the teachers, a place where students like to go and a place where teachers and parents work together.

There are often arguments between students at this school.

Of the 663 responding students, 43 percent "always" or "usually agree" there are often arguments between students at their school, but the rate of students responding in the same manner from one of the lowest-achieving schools was 76 percent, compared to 19 percent in the highest-achieving school. For the paired schools, there were differences in the students' responses between Schools A and B and between Schools C and D.

Table 45. There are often arguments between students at this school.
Percentage of Responding Students by School. "Always" + "Usually Agree"

Needy Level	Achievement Level	School	Percent	n = 663
10%	Highest	G	18.6%	
87%	Med. High	D	31.0	
65%	High	B	36.7	
		==============		43.8% Average
16%	Med. High - High	F	46.7	
15%	Med. High - Low *	E	50.0	
87%	Low	C	65.8	
66%	Low	A	75.7	

* Medium high achievement level in third grade; decreasing achievement level in sixth grade.
Differences between paired Schools (A & B) and (C & D) were noted on this question.

Students in the lowest-achieving schools record the highest response rate on arguments between students, and the students in the highest-achieving schools record the lowest incidence of arguments between students. We have high-percent needy schools with high achievement and infrequent student arguments, and high-percent needy schools with low achievement and frequent student arguments. It would appear that these student disruptions are a factor in school achievement, but as noted previously, the interview data, particularly from School A, suggests that they may be the result of greater and more complex problems.

Students at this school are very proud of the school.

The students in the highest-achieving schools record the greatest student pride in their school, and the students in the lowest-achieving schools record the least amount of student pride in their respective schools.

Of the 664 responding students, 75 percent "always" or "usually agree" that the students in their school are very proud of the school. The rate of students responding in the same manner from one of the lowest-achieving schools was only 37 percent, however, compared to 83 percent in the highest-achieving school. For the paired schools, there was a difference in the students' responses between Schools A and B and between Schools C and D.

The school building and grounds of School C appeared to be as attractive as those of Schools A and D. Schools A and D are isolated, but not to the degree of isolation of School C. Because a school is the major building in these isolated areas, the major source for social activity for the children and the major source for outside communication with the rest of the world, one would think that the school would be the source of great pride in the children's lives and in the lives of the community.

It appears that where the school building is located or what the school building looks like is not the issue, however. It appears that pride in school may equate with academic standing or with what is occurring inside the building.

Table 46. Students at this school are very proud of the school.
Percentage of Responding Students by School. "Always" + "Usually Agree"

Needy Level	Achievement Level	School	Percent	n = 664
10%	Highest	G	82.8%	
65%	High	B	80.1	
15%	Med. High - Low*	E	79.2	
87%	Med. High	D	78.7	
16%	Med. High - High*	F	77.0	
		==============		**75.0% Average**
66%	Low	A	61.5	
87%	Low	C	36.8	

* Medium high achievement level in third grade; decreasing achievement level in sixth grade.

Differences between paired Schools (A & B) and (C & D) were noted on this question.

Students in this school respect the teachers.

The ranking of schools on this statement nearly follows the same school ranking as on the statement *"Students in this school are highly respected."* The responses indicate students in the two lowest-achieving schools, Schools A and C, did not feel that students were highly respected. Now we see that these same students, in low-achieving schools, do not have a high level of respect for the teachers.

As previously noted, a majority of the teachers in these two lowest-achieving schools are drive-in teachers. In most cases, they drive an hour to arrive at the school and leave as soon as the school day is complete to drive an hour back home. Teacher turnover is greater in the two lowest-achieving schools than in the other schools. Teachers "bid" out as soon as an opening becomes available closer to their home and as seniority allows them to bid.

The interview data indicates that over the last five years, a greater number of teachers are staying for more than one year in each of these two low-achieving schools. Some are staying because of choice and some are staying because of job scarcity.

Of the 658 responding students, 77 percent "always" or "usually agree" that students in their school respect the teachers. The rate of students responding in the same manner from one of the lowest-achieving schools was 50 percent, compared to 92 percent in the highest-achieving school. For the paired schools, there were differences in the students' responses between Schools A and B and between Schools C and D.

Table 47. Students in this school respect the teachers.
Percentage of Responding Students by School. "Always" + "Usually Agree"

Needy Level	Achievement Level	School	Percent	n = 658
10%	Highest	G	91.8%	
65%	High	B	83.1	
87%	Med. High	D	80.3	
		==============		**76.9% Average**
16%	Med. High-High	F	73.9	
15%	Med. High-Low*	E	73.4	
66%	Low	A	65.4	
87%	Low	C	50.00	

* Medium high achievement level in third grade; decreasing achievement level in sixth grade.
Differences between paired Schools (A & B) and (C & D) were noted on this question.

Summary

The purpose of this research project was to advance the understanding of effective and less-effective elementary schools in West Virginia.

An overall analysis was conducted of 560 elementary schools with five years of achievement data and two years of school lunch data. The term "needy" was adopted for use throughout this report, to refer to the percentage of students receiving free or reduced-price school lunch.

From our analysis, the research question arose:

Why are some elementary schools achieving at high levels and other elementary schools with the same percent of needy students achieving at low levels?

Stated more briefly:

Why are schools with similar types of students achieving at different levels?

In trying to answer the research question, three pairs of high and low-achieving elementary schools plus the highest-achieving elementary school in the state were selected for the research project. The selected elementary schools were:

School A: Low-achieving and 66% needy
School B: High-achieving and 65% needy

School C: Low-achieving and 87% needy
School D: Moderately high-achieving and 87% needy

School E: Moderately high-achieving 3rd grade with decreasing 6th grade achievement and 15% needy
School F: Moderately high-achieving 3rd grade with increasing 6th grade achievement and 16% needy

School G: Highest-achieving and 10% needy

After the schools were selected, it was noted that four of the elementary schools, Schools A-D, were rural schools. The others, Schools E, F and G, were designated as "non-rural."

The process for the research project was to visit the selected schools, conduct interviews and administer an effective school survey to teachers, parents, students and administrators, in order to analyze data from observations, interviews and surveys for the matched schools.

A school climate survey that measured the perceptions of school effectiveness was administered to 632 parents, 670 students, 82 teachers and seven principals or central office staff. Approximately 50 teachers, parents and administrators from the seven schools were interviewed.

Since this was an exploratory and descriptive study, with a large amount of quantitative data, stringent criteria for interpretation and drawing conclusions were established. Within the survey for students there were eight subscales, for teachers there were seven and for parents there were five. The strategy was to analyze globally all subscales for students from all seven schools, using multivariate analysis. If this global analysis did not meet the decision criterion of alpha less than .01 for concluding that differences exist, the analysis would cease. If the decision criterion was met, then a global analyses of all the subscales for the three pairs of schools, again using multivariate analysis, was conducted. The same procedure was followed for teachers and parents.

In order not to overlook important information that may have been camouflaged by a total scale score, an examination of each question within a scale across schools was conducted, using Analysis of Variance and User Contrasts with an alpha value set at .01.

Throughout the report, detailed descriptions from the interview and survey data were presented to identify and substantiate differences and commonalities between the high and low-achieving schools that served students with similar demographic and socioeconomic characteristics.

Discussion:
High and Low-Achieving Rural Schools

School A - Rural, Low-Achieving, 66% needy, K-5, 257 Enrollment
School B - Rural, High-Achieving, 65% needy, PK-4, 299 Enrollment

School C - Rural, Low-Achieving, 87% needy, K-8, 209 Enrollment
School D - Rural, Moderately High-Achieving, 87% needy, K-6, 157 Enrollment

Low-achieving School A and high-achieving School B are located in diverse rural areas. School A is located in an area that was considered an isolated, closed society until the present highway was built. School B is located in the county seat, the business center for the county and close to a major four lane highway. In both schools, approximately 65 percent of the elementary school children receive free and reduced-price lunch.

Low-achieving School C and high-achieving School D are located in rural, poverty-stricken areas that have high welfare assistance and low employment opportunities as well as low education levels of the parents, low parental involvement with the school and a poor work ethic. Approximately 87 percent of the elementary school children at Schools C and D receive free and reduced-price lunch.

From the interview and survey data, it was found that the rural, low-achieving elementary schools in this study were drive-in schools with a history of high staff turnover, low continuity of instructional programs, low central office support, low student pride in the school, low student respect for the teachers and frequent student arguments. The opposite was found for the rural, high-achieving elementary schools in the study.

Combined with staff stability, the study found that high-achieving schools in rural areas had teachers that had been in their respective building longer, had more years of experience, were older and had a higher level of education than the teachers in the low-achieving rural schools. It appears that staff stability, the number of years in one building and working as a team over time are strong factors in creating effective schools.

In rural Schools C and D, interviewees talked about the low aspirations of parents toward education, low parental involvement in school activities, "the check" and welfare assistance as a way of life, poor housing conditions, the lack of jobs in the area, changing work ethic and the adverse effects of the home and community environment on student achievement. In addition, a majority of the interviewees from low-achieving School C talked about the difficulty of motivating local children and gave the impression that the many years of low school achievement could not be helped because of the adverse conditions of the community.

High-achieving School D, faced with the same adverse problems as School C, had a least five years of documented proof of students achieving at a moderate to high level. The teachers in School D talked about changing student attitudes as a top priority, providing a warm and caring place for students to come to, creating high expectations for each student to succeed and instilling a belief in the students that their success in school and in life depended upon themselves.

There was evidence of Schools B and D overcoming the adverse effects of home and community environment, but there was not evidence of this happening in Schools A and C.

From the analysis of the data, it appeared that the location of the rural school may have an indirect effect on the success of the school. Individuals from isolated School C indicated that very few people came to the school from the central office or from other places, while high-achieving School D indicated that help was only 20 minutes away whenever they needed it and individuals from the central office were often in the building.

High-achieving School B, located in the same town as the school district's central office, has had high visibility and over the years has had many available services to support the teachers with major student problems. The opposite has been true with low-achieving School A, which is located approximately one hour from the central office.

Of all seven schools in this study, the teachers in low-achieving Schools A and C have the least positive responses on the survey scales relating to the teachers' view of the school and of themselves. It appears that neither school has had staff stability, staff working as a team nor instructional continuity over a long period of time, as were found in the high-achieving Schools B and D.

Presented in Table 48 are comparisons of teacher responses from the low and high-achieving rural schools.

Table 48. High and Low-Achieving Rural Schools. Teachers' View of the School

Achievement Level **School Identification** **Percent Free/Reduced-Price School Lunch**	**Low** **A** **66%**	**Low** **C** **87%**	**High** **B** **65%**	**High** **D** **87%**
The climate in this school is poor	63%	54%	0%	0%
The communications in this school are good	13%	31%	88%	100%
Administrators and teachers work together	0%	31%	82%	89%
This school is an excellent organization	13%	31%	88%	89%
I would leave this school for any other	75%	31%	0%	0%
Number of Responding Teachers	8	13	17	9

Note the similarity in the teachers' responses from the two low-achieving schools and how they contrast with the responses from the teachers at the two high-achieving schools.

All of the responding teachers from the rural, high-achieving schools indicated they would not leave the school for any other. In other words, they *want* to be in their school. This could not be said for 75 percent of the responding teachers in low-achieving School A and 31 percent in low-achieving School C.

The responding teachers in the rural, high-achieving schools feel they are working in an excellent organization; this is not the case with the teachers in the rural, low-achieving schools. The relationship between the teachers and the principal also appears to be a major problem in the rural, low-achieving schools.

The similarity in the responses of the students from the two rural, low-achieving schools and the two rural, high-achieving schools is remarkable. It should be noted that all four of the schools are located in different counties and different parts of the state, and there was no communication between the schools during the time of the survey. In fact, none of the participating schools know the identity of other schools in the study.

Presented in Table 49 are comparisons of student responses from low-achieving Schools A and C and high-achieving Schools B and D, relating to student arguments, student pride in the school, respect for the teachers and two other selected areas.

Table 49. High and Low-Achieving Rural Schools. Students' View of the School

Achievement Level **School Identification** **Percent Free/Reduced-Price School Lunch**	**Low** **A** **66%**	**Low** **C** **87%**	**High** **B** **65%**	**High** **D** **87%**
There are often arguments between students at this school	76%	66%	37%	32%
Students in this school respect the teachers	65%	50%	83%	80%
Students at this school are very proud of the school	62%	37%	80%	79%
I would quit school if I could	30%	34%	14%	24%
Students in this school are highly respected	65%	63%	81%	81%
Number of Responding Students	80	38	80	76

Table 50. High and Low-Achieving Rural Schools. Parents' View of the School

Achievement Level **School Identification** **Percent Free/Reduced-Price School Lunch**	**Low** **A** **66%**	**Low** **C** **87%**	**High** **B** **65%**	**High** **D** **87%**
My child's school has high expectations	49%	54%	52%	75%
I am satisfied with my child's school	69%	68%	69%	82%
My child's school is highly respected	52%	43%	60%	76%
Parents at my school are very loyal to the school and staff	63%	62%	48%	54%
Number of Responding Parents	48	40	117	72

Presented in Table 50 are the responses from the parents on selected questions concerning the high and low-achieving schools.

The most alarming responses were from the parents. In both pairs of high and low-achieving rural schools there were no statistical differences in the parents' responses regarding the schools. Overall, however, the parents' responses from high-achieving School B were less positive than the ones from the parents of low-achieving School A.

The parents' low positive responses concerning the rural schools in this study, plus their low involvement with the schools, draws attention to the role of the parent in areas with high poverty and low education levels. As indicated in the interview data, the teachers in high-achieving School B are "peddling about as fast as they can" and "they're probably having to fight parents to do that." It appears that not only are the teachers in School B trying to overcome the adverse effects of poor home life, but they are having to "fight parents" to do it. And, from the survey responses, it appears the parents do not have a great appreciation or knowledge of what the school is doing.

It appears that the strong instructional program at high-achieving School B could be used as a role model for all schools that are located in low-income areas in the state. This is not said lightly, because approximately 52 percent of the elementary school children in the state receive free or reduced-price lunches and West Virginia has the highest percentage of white children living in poverty in all 50 states. In 1992-93, approximately 340 of the 560 elementary schools in the state, or 60 percent, had one-half or more of their students receiving free or reduced-price lunch. The average enrollment for these schools was 116 to 260 students. Schools with 40 percent or less needy students had enrollments of 269 to 327 students.

High-achieving School B has full-day pre-kindergarten, a focused kindergarten, a strong first grade program, Open Court reading program, reading training for the faculty, first grade reading success, home visits for pre-kindergarten and kindergarten, a constant search for students who need special help for early identification and test score results analyzed by the classroom teachers to identify student and instructional program weaknesses. Every grade is tested; because of this, everyone in the school is held accountable. It is expected that students in School B will advance one grade level over the school year.

Past and present available student services at School B include a school psychologist, counselors, a preschool handicapped program, speech therapist, Chapter I reading and math and recently, computers in the classroom. Over the years, high expectations have been placed on the faculty and students at high-achieving School B.

Overall, there appears to be a great difference in the high and low-achieving rural schools, but not in the students attending the schools.

Discussion: Non-Rural Schools

School E - Non-Rural, Moderately High Third Grade Achievement, Decreasing Sixth Grade Achievement, 15% needy, K-6, 315 Enrollment

School F - Non-Rural, Moderately High Third Grade Achievement, Increasing Sixth Grade Achievement, 16% needy, K-6, 281 Enrollment

School G - Non-Rural, Highest-Achieving, 10% needy, K-5, 265 Enrollment

School F and G are non-rural schools with over 60 percent of the parents having a college or graduate degree. Parents, teachers and principals mentioned there were many doctors and lawyers among the families at Schools F and G. Both schools were described as being upper-middle class, with evidence of affluence.

School E is a non-rural school with 43 percent of the fathers and 38 percent of the mothers having college or graduate degrees. The interviewees emphasized that the children who attended School E were from middle-class families. All three schools have low levels of needy students: 10 percent for School G; 15 percent for School E; and 16 percent for School F.

All three schools have a history of being successful, all are seen as desirable places in which to teach and all have high parental involvement. Teachers want to be at these schools and faculty turnover is low. In all three schools, a majority of the teachers have at least 17 years of teaching experience, have been in their respective school building five years or longer and have a master's degree plus additional hours.

Principals and Their Styles

School E has had three different principals in the last five years. The present principal emphasizes communication, followed by academics and art. In School F, the principal seems to emphasize academics and then communication. The principal at School G seems to emphasize communication and academics about equally.

Eighty-two percent of the responding teachers in School F indicated there are open lines of communication between faculty and the building administrator, compared to 100 percent of the responding teachers in Schools F and G.

Types of Enrichment Programs

School F appears to have had numerous field trips; School G seems to have enrichment integrated into its regular program; and School E seems to have major programs led by the parents. Schools F and G have programs for gifted and talented children, both have accelerated programs and interviewees discussed language arts, social studies, math and science about equally. School E seems to focus almost exclusively on language arts, reading and the arts, and their Parent Enrichment Group brings an extensive art program to the school.

Difference in 6th Grade Achievement

One of the major reasons for looking at Schools E and F was the difference in their sixth grade achievement levels. Both have moderately high third grade achievement, with sixth grade achievement declining in School E and increasing in School F.

From the interview data, it appeared that the strong teachers in the upper grades in School F may be the reason the students are increasing their sixth grade achievement scores over their third grade scores; the teachers in the upper grades also had been together and worked as a team in the school for many years. Overall, teacher education level and years of experience were about the same in Schools E and F.

Another reason for a difference in the sixth grade achievement scores in Schools E and F may be due to the difference in the attitude of the boys in the two schools. The boys in School E had the lowest responses on motivation of all the students in the survey, but available data could not determine the reason for such low scores.

There is a difference in parent education level between Schools E and F, but to determine if parents' education level has an effect on sixth grade achievement between the two schools is beyond the scope of this analysis or the data collected.

Table 51. Summary of Differences. **Schools A - G.**	**School A** **Rural** **66% Needy** **Low-Achieving** **K-5** **257**	**School B** **Rural** **65% Needy** **High-Achieving** **PK-4** **299**
AREAS OF DIFFERENCE		
Community Location	Rural	County Seat
Proximity to Central Office	One Hour	Same Town
Overcome Adverse Student Conditions	No	Yes
Available Student Services	Lacking	Full Services
Pre-Kindergarten	No	Yes
Central Office Support	Improving	Very Strong
Staff Stability	High Turnover	Low Turnover
Identified Instructional Leader	No	Yes-Teachers
Home Visits	No	Yes
Principal/Teacher Relations	Conflict	Supportive
Parental Involvement	Low; No PTA	Low; Limited PTA
Business Partner	Yes	Yes
Teachers Working as a Team Over the Years	No; High Staff Turnover	Yes; Low Staff Turnover
Continuity of Instructional Program	No; High Staff Turnover	Yes; Low Staff Turnover
Accountability	State	Teachers, System
Students Working on Grade Level	Working Below	On Level
Student Arguments	High	Low
Students* Respect the Teachers	65% Agree	83% Agree
Students* are Highly Respected	65% Agree	81% Agree
Students* are Proud of the School	62% Agree	80% Agree
Student Motivation to Attend School	4th School Ranking	2nd School Ranking
Teachers => Master's	13%	53%
Parents (Father) =< High School Education	36%	15%
Parents (Father) College or Graduate Degree	14%	31%

*Percentage of responding students that always or usually agree

School C **Rural** **87% Needy** **Low-Achieving** **K-8** **209**	**School D** **Rural** **87% Needy** **Moderately High** **K-6** **157**	**School E** **Non-rural** **15% Needy** **Moderately High** **K-6** **315**	**School F** **Non-rural** **16% Needy** **Moderately High** **K-6** **281**	**School G** **Non-rural** **10% Needy** **Very High** **K-5** **265**
Isolated	20 Minutes to Small Town	Non-rural	Non-rural Professional	Non-rural, Professional
45 minutes	20 Minutes	25 Minutes	Same Town	Same Town
No	Top Priority	Not an Issue	Becoming a Concern	Not an Issue
Lacking	75% Services	Enrichment Accelerated	Enrichment Accelerated	Enrichment Accelerated
Yes	No	No	No	No
Lacking	Available	Supportive	Discord Over Hiring	Supportive
Moderate Turnover	Low Turnover	Low Turnover	Low Turnover	Low Turnover
No	Yes-Teachers/Principal	Teachers/Parents	Teachers/Principal	Principal/Teachers
No	Yes	No	No	No
Supportive 1st Year	Interactive; Team Work	3 Principals in 5 Years	Mild Discord	Strong Respect
Low; Limited PTO	Low; Limited PTO	Very High	High	Very High
No	Yes	Yes	Yes	Yes
No; High Staff Turnover	Yes; Low Staff Turnover	Primary & Intermediate Team Work	Yes; Low Staff Turnover	Yes; Low Staff Turnover
No; High Staff Turnover	Yes; Low Staff Turnover	Yes; Low Staff Turnover	Yes; Low Staff Turnover	Yes; Low Staff Turnover
State	Teachers; Principal	Parents; System	Parents; Principal	Parents; Principal
Working Below	Individualized Programs	Yes	Yes	Yes
High	Low	Moderate	Moderate	Low
50% Agree	80% Agree	73% Agree	74% Agree	92% Agree
63% Agree	81% Agree	70% Agree	62% Agree	85% Agree
37% Agree	79% Agree	79% Agree	77% Agree	83% Agree
6th School Ranking	1st School Ranking	7th School Ranking	5th School Ranking	3rd School Ranking
31%	89%	62%	64%	64%
50%	41%	4%	2%	1%
2.5%	3%	43%	64%	68%

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Conclusions

What are the characteristics of effective and less effective elementary schools in West Virginia? To answer this question, schools with similar rates of students receiving free and reduced-price lunch and differences in academic achievement were paired and examined. The responses of 632 parents, 670 students, 82 teachers and seven principals or central office staff from the paired schools were analyzed. Information from interviews with 50 teachers, parents and administrators was also analyzed, and combined with the survey data to identify the differences and commonalities among effective and less effective elementary schools in West Virginia. From the analysis of the survey and interview data, the following were identified as characteristics shared by the effective elementary schools in this research project:

- high student achievement, irrespective of the percent of needy students, parents' education level, parents' income level or amount of parent involvement;
- low teacher turnover, combined with a stable faculty that exhibits teamwork and the ability to set common goals and coordinate the instructional program;
- high staff morale and job satisfaction;
- strong teacher accountability;
- teachers with a high level of education and experience and commitment to the school and the students;
- a strong and determined attitude among teachers that children can and will achieve; teachers who identify and address individual student needs;
- infrequent student arguments, strong student pride in the school, high levels of student respect for the teachers and, in turn, students feeling that they are respected;
- high student motivation in rural, high-poverty areas;
- high to moderately high attention paid to the school by the central office;
- availability of student services to offset the detrimental effects of poverty; or enrichment programs such as band, art, field trips and accelerated classes to enhance student learning;
- an identified instructional leader and a coordinated instructional program. The instructional leader may be the teachers, the principal or the superintendent. In some low-achieving schools, the West Vir-

ginia Department of Education has become the instructional force by designating the school "seriously impaired;" and

- a principal who is supportive of the teachers and the academic program; has an open communication style and an open relationship with the staff.

In summary, effective schools in both rural and non-rural areas have low faculty turnover, teachers with a high level of experience and education, high staff commitment to the students and the school, an identified instructional leader, a unified achievement plan for the whole school and a staff that works as a team to coordinate the instructional program over time.

In addition, effective schools in rural areas with low parent education and low parent involvement have available student services which offset the detrimental effects of poverty, combined with a strong and determined school and staff attitude that children from all backgrounds can achieve.

Student motivation in the effective rural schools located in high poverty areas was the highest of all the schools in the study.

Glossary of Terms

Basic Skills - A composite score of total reading, total language and total mathematics of the Comprehensive Tests of Basic Skills (CTBS). Total reading consists of reading vocabulary and reading comprehension; total language consists of language mechanics and language expression; and total mathematics consists of mathematics computation and mathematics concepts and applications.

Bidding or Bid Out - A phrase to describe the practice of teachers applying for job openings at other schools considered to be more attractive in terms of their overall reputation. These teacher transfers often create a chain reaction, affecting a significant number of classrooms during the school year. They also impact the degree of teacher turnover and the continuity of the instructional program.

Chapter I - A federally funded program that provides basic instructional services such as remedial reading and mathematics for disadvantaged elementary and secondary students. In 1990-91, 35.4 percent of the number of free and reduced-price school lunch participants participated in Chapter I programs in West Virginia.
Source: Children's Defense Fund, *The State of America's Children Yearbook, 1994*, p. 98.

CTBS - Comprehensive Tests of Basic Skills. The CTBS is norm-referenced tests given in the fall to grades 9 and 11 and in the spring to grades 3 and 6. Participation is mandatory for public schools. Reported are the mean percentile scores for total language, total mathematics, total reading, basic skills, spelling, word analysis (for grade 3), study skills (for grades 6, 9 and 11), science and social studies. The major purpose of the norm-referenced tests is to provide information for the instruction/learning process. As part of this component, information is collected about individual students and then reported by student, school, county and state. This collected data can provide information to students, parents and educators about performance on the CTBS relative to the performance of a 1988 sample of students from throughout the nation.
Source: West Virginia Department of Education, *West Virginia Report Cards: State, County and School Data*, 1993-94, p. 474; *Public Education in West Virginia, Source Book*, 1993, p. 422.

Drive-in school - A school where a majority of the faculty drive in from outlying areas to work at the school during the school day and leave the school attendance area at the end of the school day.

ERIC - The Education Resources Information Center is an information system initiated in 1966 and funded by the U.S. Department of Education to give users access to important journals and documents in education.

Faculty Senate - A legislatively mandated organization at all public schools in West Virginia "which shall be comprised of all permanent, full-time professional educators employed at the school who shall be voting members." Created in 1990, Faculty Senate responsibilities include disbursement of certain allocated funds, input into the school's hiring process, nomination of educators for recognition and making recommendations regarding curriculum and other pertinent issues related to instruction.
Source: Section 5, Article 5A, Chapter Eighteen of the Code of West Virginia, as amended.

Head Start - A federally-funded program that provides developmental, educational and health services to disadvantaged preschoolers and their families. Since 1965, Head Start has targeted its early childhood development program on the nation's neediest three to five-year-old children and their families. In 1992, approximately 34.4 percent of the number of eligible poor three and four-year-olds were served by Head Start in West Virginia. Nationwide, 35.9 percent of the eligible children participated in a Head Start program in 1992. Source: Children's Defense Fund, *The State of America's Children Yearbook, 1994*, p. 92.

Interaction - The global analysis of the student scale scores for Schools E, F and G of this study indicated there was a significant interaction between school and gender relative to the scale scores. In this case, the significant interaction meant that the student survey scores were not just different between schools, but between boys and girls within at least one of the schools. Instead of just looking at the difference in the scale scores among the seven schools, the significant interaction indicated a difference in the scale scores between boys and girls of at least one of the schools.

KanLEAD - Kansas Leadership in Educational Adminstration Development. The KanLEAD Educational Consortium is the result of a grant received by the state of Kansas from the Federal Leadership in Educational Administration (LEAD). In 1988 KanLEAD contracted with Kansas State University and the University of Kansas to develop a way to measure school and principal effectiveness. The Diagnostic Assessment of School and Principal Effectiveness is the result.

LSIC - Local School Improvement Council. LSICs are local school decision making councils mandated by state legislation in 1990 to include representation from the school staff and service personnel, community, businesses, parents and students. LSICs are "to promote innovations and improvements in the environment for teaching and learning at the school." Source: Section 2, Article 5A, Chapter Eighteen of the Code of West Virginia, as amended.

Needy - This study used the word "needy" as a short description of the percentage of elementary school students receiving free and reduced-price school lunch. The terms "at-risk" and "disadvantaged" also have been used to describe this group of students in other studies. Some studies, including this one, have used the percentage of free and reduced-price school lunch participants as a surrogate for the socioeconomic status of an area.

Open Court Reading Program - An integrated language arts curriculum, utilizing authentic literature as its core. The Open Court reading program is designed to develop childrens' phonemic and print awareness so that they will understand the power of literacy and will be highly motivated to read and write.

Rural - An area with 2,500 inhabitants or fewer and/or a population density of less than 1,000 per square mile. Source: United States Department of Education, National Center for Education Statistics, Office of Educational Research and Improvement, Common Core of Data CCD Disc.

School outliers - For this study, school outliers refers to elementary schools that have a higher or lower level of student achievement than would be predicted by their rate of free and reduced-price school lunch participation.

Search and serve school - A school that looks for, identifies and works with preschool-age students who need special help and attention. The school's philosophy: early identification leads to identifying and working with students early in their career so they don't become problems later in their elementary years.

Seniority - The seniority of classroom teachers is determined on the basis of the length of time the employee has been employed as a regular full-time certified and/or licensed professional educator by the county board of education and is granted in all areas that the employee is certified and/or licensed. Employment for a full employment term equals one year of seniority. When one or more permanently employed instructional personnel apply for a classroom teaching position and meet the standards set forth in the job posting, the county board of education makes decisions affecting the filling of such positions on the basis of the following criteria: Appropriate certification and/or licensure; total amount of teaching experience; the existence of teaching experience in the required certification area; degree level in the required certification area; specialized training directly related to the performance of the job as stated in the job description; receiving an overall rating of satisfactory in evaluations over the previous two years; and seniority. Consideration shall be given to each criterion with each criterion being given equal weight. Source: Section seven-a, article four, chapter eighteen-a of the code of West Virginia, 1993.

Seriously impaired status - A school is considered to be seriously impaired by the State Superintendent and the West Virginia Board of Education when one or more of the following conditions exist:

- Scores by grade level in Total Basic Skills tested by the State-County Testing Program are below the 30th percentile in the most recent year for which data is available and one of the two preceding years.

- Student attendance rate is at or below 80 percent in the most recent year for which data is available and one of the two preceding years.

- Student dropout rate is at or above 25 percent in the most recent year for which data are available and one of the two preceding years.

- The State Superintendent and the State Board may determine a school to be seriously impaired when extraordinary circumstances exist.

When a school is seriously impaired, the state superintendent, with the approval of the state board, shall appoint a team of three improvement consultants to make recommendations within sixty days for correction of the impairment. Source: West Virginia Department of Education, *1995 Report of Ratings. West Virginia Performance Based Accreditation System, School District Approval Status and School Accreditation Status.*

Socioeconomic (SES) - Involving both social and economic factors such as income and education levels of the adults residing in the school attendance area.

Turnover school - A school where a majority of the faculty leave the employment of the school during the school term and/or at the end of one or two years. A turnover school refers to a high rate of faculty change or turnover from one year to the next.

Whole Language Reading Program - A reading program that incorporates a central theme across all areas of the curriculum.

Appendix A

ANALYSIS OF THE QUANTITATIVE DATA

Dr. Elizabeth Koball & Dr. Mary F. Hughes

Survey: Diagnostic Assessment of School and Principal Effectiveness. Published by: KanLEAD Educational Consortium, Topeka, Kansas.

Stringent criteria for interpretation and drawing conclusions were established for the large amount of survey data. Within the climate survey for students there are eight subscales, for teachers there are seven, and for parents there are five. Additionally, the study focused on three pairs of schools.

The strategy was to analyze globally all subscales for students from all seven schools, using multivariate analysis of variance. If this global analysis did not meet the decision criterion of alpha less than .01 for concluding that differences exist, the analysis would stop. If the decision criterion was met, then a global analysis would be performed of all the subscales for the three pairs of schools, again using multivariate analysis of variance. Again if the analysis did not meet the decision criterion of alpha less than .01, the analysis stopped for the individual pair of schools. If the analysis did meet the criterion, the individual subscales were analyzed for differences between the schools within each pair. The same procedure was followed for teachers and parents. Using this method of analysis, there is reasonable confidence that the differences that are highlighted are genuine differences, and not merely happenstance.

Analysis of Socioeconomic Status (SES)

The schools were matched based on grade levels within the schools and socioeconomic status (SES), based on the percent of students within the schools who received free and reduced-price lunch. Through the surveys for students, two more indicators of SES were obtained: father's education and mother's education. Table A-1 shows the distribution of education levels for mothers and fathers of students in all seven schools. To check the assumption of comparable SES within each pair of schools, the distribution of mothers' levels of education and fathers' levels of education were tested. A Chi square test of independence was used for this analysis, with the decision criterion set at alpha less than .01 to conclude differences. Alpha greater than .20 to conclude no difference.

Table A-1.
Frequencies and percents of parents' educational levels

School	% Needy	Parent	<high school	high school	some college	college	grad. degree	TOTAL
A	66%	fa	27(36)	33(44)	5(7)	8(11)	2(3)	75
		mo	18(25)	32(44)	9(12.5)	11(15)	2(3)	72
B	65%	fa	9(13)	29(43)	9(13)	14(21)	7(10)	68
		mo	6(8)	27(37)	15(21)	18(25)	6(8)	72
C	87%	fa	19(50)	12(32)	5(13)	1(2.5)	1(2.5)	38
		mo	19(50)	11(30)	5(13)	2(5)	1(2.5)	38
D	87%	fa	30(41)	34(47)	5(7)	2(3)	2(3)	73
		mo	32(43)	31(41)	3(4)	3(4)	6(8)	75
E	15%	fa	5(4)	34(29)	28(24)	40(34)	10(9)	117
		mo	2(2)	44(37)	28(23)	33(28)	12(10)	119
F	16%	fa	3(2)	24(17)	22(16)	52(37)	38(27)	139
		mo	4(3)	25(19)	20(14)	69(50)	20(14)	139
G	10%	fa	1(1)	30(23)	11(8)	40(31)	49(37)	131
		mo	0	26(20)	15(11)	53(40)	39(29)	133

Note: numbers in parentheses are percents

For Schools A and B, the distribution of fathers' educational levels were different (p=.006), but evidence was inconclusive relative to the mothers' educational levels (p=.021). Given that in both schools approximately 65 percent of the students qualified for the lunch program, and both schools qualified for Chapter I funds, the comparison of these two schools continued.

For Schools C and D, no evidence of difference between fathers' nor mothers' levels of education, (p=.57 and p=.23, respectively) was found. In both schools 87 percent of the children received free or reduced price lunch, and the schools qualified for Chapter I funds. These two schools were well matched on indicators of SES.

For Schools E and F, evidence of significant differences was found between both fathers' and mothers' levels of education, and between the schools (p=.0008 and p=.0005, respectively). In looking at Table 1, one can see that parents at neither school have low levels of education, nearly all have completed at least high school. However, at the higher levels, fewer than half of the parents (42.5 percent of fathers and 38 percent of mothers) of children in School E have college or graduate degrees; whereas, 64 percent of both fathers and mothers in School F have college or graduate degrees. Fifteen percent of the students at School E and 16 percent of the students at School F qualify for free or reduced-price lunch. Neither school qualifies for Chapter I funds.

Looking further at Table A-1, it appears that School G (the highest-achieving school) more closely matches School F, relative to parents' education: 68 percent of fathers and 69 percent of mothers have college or graduate degrees. Testing for evidence of significant differences between the parents' education between School G and School F, there was not sufficient evidence to conclude that the two schools were different (p=.09 for fathers, and p=.0123 for mothers). However, only 10 percent of the students at School G qualify for the lunch program and School G's overall structure is different from both Schools E and F. These results left the research team with several questions about how to proceed with the analysis: should we just simply describe the results of the climate survey and make no comparisons, should we go ahead and compare School E with School F, should we compare School F with School G?

The interview data suggested many similarities between School G and School E, the SES data and the interviews suggested other similarities between School F and School G, and the school lunch program data suggested similarities between School E and School F. Therefore, the research team decided that the most fruitful approach would be to compare and contrast all three schools both on the climate surveys and on the interviews, knowing that this would mean taking even greater care in the interpretation of the results.

Analysis of School Climate Scales for Students

The **Diagnostic Assessment of School and Principal Effectiveness, Student Version,** consisting of eight subscales, was administered to 670 students, who attend the seven schools in this study. All of the scales were assessed for reliability, using Cronbach's measure of internal consistency. The reliabilities ranged from .65 (moderate) to .85 (moderately high), all acceptable for further analysis. Tables A-2 through A-9 provide the names and definitions of the scales, number of items in the scale, possible range of scores, followed by the means and standard deviations, broken down by school. All of the scales used the following response format: always agree, usually agree, usually disagree and always disagree. Several items were stated negatively, in order to prevent response set (responding without actually reading the item). For the analysis, these items were reverse coded, so that a score of "1" always represented the most positive response, and a score of "4" always represented the most negative response, relative to the attribute being assessed.

Table A-2. SCHOOL NORMS: The students' perceptions of the school's achievement and work standard; the extent to which students believe that the school expects a high performance level (9 items, possible range 9-36, 9 representing the most positive and 36 the most negative possible score).

SCHOOL	RANK	MEAN (AVERAGE)	STANDARD DEVIATION	NUMBER RESPONDING
A	6	13.2	3.5	73
B	2	12.0	3.4	74
C	7	13.3	4.4	37
D	5	12.8	3.8	71
E	4	12.7 b=13.6 g=11.4	3.9	120
F	3	12.3	2.7	133
G	1	11.4	2.5	134

(A low score is considered more desirable)

Table A-3. SCHOOL ADAPTATION: The students' perceptions of the school's ability to deal successfully with the parents, community, and external change (6 items, possible range 6-24).

SCHOOL	RANK	MEAN (AVERAGE)	STANDARD DEVIATION	NUMBER RESPONDING
A	6	10.5	3.1	70
B	2.5	9.7	3.1	69
C	4	9.9	3.3	37
D	2.5	9.7	3.6	75
E	7	10.7 b = 12.0 g = 9.0	3.7	118
F	5	10.1	3.0	133
G	1	8.7	2.4	133

(A low score is considered more desirable.)

Table A-4. SCHOOL INTEGRATION: The students' perceptions of the ability of the school to organize, coordinate, and unify the various school tasks necessary for achievement (10 items, possible range 10-40).

SCHOOL	RANK	MEAN (AVERAGE)	STANDARD DEVIATION	NUMBER RESPONDING
A	6	20.9	4.0	69
B	3	17.9	4.1	74
C	7	21.5	4.0	36
D	2	17.6	3.9	73
E	4	18.9 b=20.4 g=17.3	5.2	119
F	5	19.0	3.8	133
G	1	15.8	3.5	133

(A low score is considered more desirable)

Table A-5. SCHOOL MAINTENANCE: The students' perceptions of the school's ability to create and maintain the school's motivational and value structure. For an organization to function effectively over an extended period there must be a certain sense of client and employee loyalty to the organization, its goals, and culture (10 items, possible range 10-40).

SCHOOL	RANK	MEAN (AVERAGE)	STANDARD DEVIATION	NUMBER RESPONDING
A	6	20.8	5.4	62
B	2	18.2	5.0	78
C	7	22.1	6.9	38
D	3	19.0	5.9	71
E	5	20.1 b=18.6 g=14.9	5.6	117
F	4	19.8	4.8	138
G	1	17.5	4.8	132

(A low score is considered more desirable)

Table A-6. ACADEMIC FUTILITY: The students' perceptions of the relationships among effort in school, subsequent rewards and future success in school (10 items, possible range 10-40). *Students who drop out of school are examples of individuals who do not perceive the current effort to be linked to future rewards.*

SCHOOL	RANK	MEAN (AVERAGE)	STANDARD DEVIATION	NUMBER RESPONDING
A	4	16.4	4.2	69
B	2	15.2	3.9	70
C	7	18.6	6.0	36
D	5.5	17.0	5.2	74
E	5.5	17.0	4.8	116
F	3	15.8	3.8	134
G	1	14.1	3.4	133

(A low score is considered more desirable)

Table A-7. STUDENT SELF-CONCEPT: The students' perceptions of their ability to master school work, establish social friendships and gain acceptance within the school (14 items, possible range 14-56).

SCHOOL	RANK	MEAN (AVERAGE)	STANDARD DEVIATION	NUMBER RESPONDING
A	4	29.7	6.6	68
B	3	28.8	6.3	72
C	7	31.8	7.9	36
D	6	30.6	8.0	70
E	5	30.1	7.8	113
F	2	28.6	6.1	132
G	1	25.8	6.0	132

(A low score is considered more desirable)

Table A-8. STUDENT SELF-RELIANCE: The students' perceptions of their ability and desire to function independently within the school context (9 items, possible range 9-36).

SCHOOL	RANK	MEAN (AVERAGE)	STANDARD DEVIATION	NUMBER RESPONDING
A	4	21.9	5.3	73
B	1	21.0	4.7	74
C	5	23.1	6.3	36
D	7	25.5	5.0	73
E	6	23.3	5.6	115
F	3	21.7	5.0	136
G	2	21.2	5.1	134

(A low score is considered more desirable)

Table A-9. STUDENT MOTIVATION: The student's motivation to attend school and the importance he/she attaches to school (9 items, possible range 9-36).

SCHOOL	RANK	MEAN (AVERAGE)	STANDARD DEVIATION	NUMBER RESPONDING
A	4	20.5	6.2	72
B	2	19.4	5.9	73
C	6	22.4	8.0	37
D	1	18.7	6.2	73
E	7	23.3 b=25.6 g=20.7	5.6	118
F	5	21.1	5.3	135
G	3	19.6	4.9	134

(A low score is considered more desirable)

Before continuing the analysis, it is worth noting that in general, the average scores for each school on each scale were positive. There was only one exception, which was only slightly negative, among the 56 average scores. The students, across the board, expressed positive perceptions of their schools and of themselves as students.

As stated earlier, the analysis began with a global comparison of all scales, across all schools, using multivariate analysis of variance (MANOVA). If this comparison did not yield differences at the decision criterion level of .01, the analysis would cease. Because current research suggests that there are often differences between boys and girls, relative to their perceptions of school and their academic achievement, included in the analysis was the independent factor, school, and also the independent factor, gender. The result of this first analysis yielded p-values that were less than .00005, for both factors, therefore we proceeded with the originally planned analyses of the matched sets of Schools: A and B; C and D; and E, F and G.

The first step of the analysis of the scale scores for Schools A and B was a comparison of all the scales for both schools. Neither factor, school nor gender, produced evidence of significant differences (p=.0332 for school, p=.0256 for gender, and p=.1906 for interaction between the two independent variables). Therefore, the analysis of the students' climate survey scores for Schools A and B ceased.

The global analysis (MANOVA) of the scale scores for Schools C and D indicated there were significant differences between the two schools on the scales ($F(8,73)=4.02$, $p=.0005$). There was not evidence of differences between boys and girls relative to their responses to the survey, nor was their evidence of a significant interaction between schools and gender relative to the scale scores. Given the results of the global analysis, the individual scales were analyzed in order to identify the specific scales for which there were significant differences between the schools. The following scales yielded significant results: **student motivation ($p=.0002$), school integration ($p=.0001$), and school maintenance ($p=.0021$)**. In all three cases, School D had more positive scores than School C.

The global analysis (MANOVA) of the scale scores for Schools E, F, and G indicated there were significant differences among the schools ($F(16,632)=4.94$, $p<.00005$), between boys and girls relative to their responses to the survey ($F(8,316)=3.96$, $p=.0002$), and significant interactions between schools and gender, relative to the scale scores ($F(16,632)=2.22$, $p=.004$). Given these results, the individual scales were analyzed in order to identify the specific scales for which there were significant differences among schools, between boys and girls and among interactions. Since there were so many significant results, the results of these analyses are displayed in Table A-10. For those scales for which there was only a difference among the schools, the average scores for the schools are provided. For those for which there are differences among the schools and between boys and girls, means are provided for the schools and for the girls and boys. For those for which there is a significant interaction, the means are provided separately for girls and boys within each school. A significant interaction means that the results were not uniform across the schools; for example, at one school the scores of the boys and girls may not have been different, while at another school the scores may have been significantly different between the boys and girls.

Table A-10. Probability values for significant differences for each of the scales.

TITLE	PROBABILITY AND MEANS FOR SCHOOL DIF.	PROBABILITY AND MEANS FOR GENDER DIF.	PROBABILITIES AND MEANS FOR INTERACTIONS
NORMS			p=.0006 3b=11.1, 3g=11.9 6b=13.6, 6g=11.4 7b=12.0, 7g=12.4
ADAP	p<.00005	p=.0008	p=.0005 3b= 8.9, 3g= 8.5 6b=12.0, 6g= 9.0 7b=10.0, 7g=10.0
INTE	p<.00005		p=.0089 3b=15.6, 3g=15.9 6b=20.4, 6g=17.3 7b=19.2, 7g=19.0
MAIN	p=.0001 3bg=17.5 6bg=20.0 7bg=20.1	p=.0016 b=20.1 g=18.3	
FUTI	p<.00005	p=.0014	p=.0011 3b=14.3, 3g=14.1 6b=18.6, 6g=14.9 7b=15.8, 7g=15.6
CONC	p=.0001 3bg=26.0 6bg=29.8 7bg=28.3		
RELI	p=.0051 3bg=21.3 6bg=23.6 7bg=21.9		
MOTI	p<.00005	p=.0001	p=.0044 3b=20.1, 3g=18.8 6b=25.6, 6g=20.7 7b=21.6, 7g=21.1

Even when there are significant differences among schools and/or between boys and girls, as indicated by the p-values, if there is a significant interaction, that needs to be interpreted first. For example, for the motivation scale, analysis of the interaction reveals that the boys in School E have significantly higher (more negative) scores than the other subgroups. If one were to combine scores for all students at School E, it would lead to the clearly false conclusion that even the girls at School E have higher scores than students from Schools G and F. Therefore, whenever there is a significant interaction, only the means for the sub-groups are shown in the table. Even though there are many significant findings in this analysis, the most noteworthy is that the boys in School E have consistently less positive results than the other subgroups, while the girls' results are generally comparable to the scores of the students from the other schools. In general, the students at School G responded most positively to the scales, the girls at School E responded nearly as positively as the students at School G, all the students at School F responded generally less positively than the preceding two groups and finally, the boys at School E responded the least positively of all. In fact, the boys at School E had the least positive responses of all the students at all of the schools, on all but one scale. This result was so puzzling that additional variables were considered: could age have been a factor; perhaps, grades; perhaps, the boys were more likely to have been members of families with less education, or more education; could race have been a factor? All of these variables were investigated, and none provided even a suggestion of an explanation.

Analysis of School Climate Scales for Teachers

The **Diagnostic Assessment of School and Principal Effectiveness, Teacher Version,** consisting of seven subscales, and was administered to 82 teachers who are faculty members at the seven schools in this study. Tables A-11 through A-17 provide the names and definitions of the scales, number of items in the scale, possible range of scores, followed by the means and standard deviations, broken down by school. With the exception of the Principal Behavior Scale, all of the scales used the following response format: strongly agree, agree, neutral, disagree, and strongly disagree. Several items were stated negatively, in order to prevent response set (responding without actually reading the item). For the analysis, these items were reverse coded, so that a score of "1" always represented the most positive response, and a score of "5" always represented the most negative response, relative to the attribute being assessed. The Principal Behavior Subscale used the following response format: never, almost never, sometimes, often, almost always, always. All of these items were worded such that a score of "1" always represented the most negative response, and a score of "6" always represented the most positive response. None of the items in this scale had to be reverse coded.

Table A-11. SCHOOL INTEGRATION: The staff's perception of the ability of the school to organize, coordinate, and unify the social entity into a single unit; the ability of the school to unify the various school tasks necessary for achievement. (17 items, possible range 17-85)

SCHOOL	RANK	MEAN (AVERAGE)	STANDARD DEVIATION	NUMBER RESPONDING
A	6	45.4	7.3	8
B	5	38.2	5.6	17
C	7	53.5	14.5	13
D	4	31.0	7.6	9
E	1	25.2	5.6	13
F	3	30.6	5.2	11
G	2	27.1	7.7	11

(A low score is considered more desirable)

Table A-12. GOAL ATTAINMENT: The staff's perception of the ability of the school to define objectives, mobilize resources and achieve these desired ends (academic and social). (15 items, possible range 15-75)

SCHOOL	RANK	MEAN (AVERAGE)	STANDARD DEVIATION	NUMBER RESPONDING
A	6	35.5	7.3	8
B	5	29.8	4.5	17
C	7	37.2	7.6	13
D	3	25.4	5.9	9
E	2	21.0	5.3	13
F	4	26.3	5.0	11
G	1	20.7	4.8	11

(A low score is considered more desirable)

Table A-13. SCHOOL ADAPTATION: The staff's perception of the school's ability to successfully control, transform or adjust to the external environment through accommodation or change; the teachers' perceptions of the school's ability to deal successfully with the parents, the community and external change. (20 items, possible range 20-100)

SCHOOL	RANK	MEAN (AVERAGE)	STANDARD DEVIATION	NUMBER RESPONDING
A	5	49.6	5.6	8
B	6	52.2	6.2	17
C	7	62.6	8.4	13
D	3	43.6	5.4	9
E	1	38.1	9.7	13
F	4	45.1	5.1	11
G	2	39.1	9.6	11

(A low score is considered more desirable)

Table A-14. STAFF MORALE: The degree to which the teacher feels the work conditions and services are adequate, the personnel policies and practices are reasonable and relationships among staff are harmonious. (10 items, possible range 10-50)

SCHOOL	RANK	MEAN (AVERAGE)	STANDARD DEVIATION	NUMBER RESPONDING
A	7	33.5	2.1	8
B	5	21.1	3.9	17
C	6	25.5	5.3	13
D	4	19.9	4.4	9
E	1	12.8	2.8	13
F	3	19.8	3.8	11
G	2	17.0	4.6	11

(A low score is considered more desirable)

Table A-15. STAFF COMMITMENT: The staff's acceptance of the organization's values, willingness to exert effort on behalf of the organization, and the desire to remain an employee of the organization. (12 items, possible range 12-60)

SCHOOL	RANK	MEAN (AVERAGE)	STANDARD DEVIATION	NUMBER RESPONDING
A	7	37.4	5.8	8
B	5	26.4	5.1	17
C	6	36.5	8.9	13
D	4	22.8	5.9	9
E	1	18.2	4.9	13
F	3	22.2	5.0	11
G	2	19.1	5.0	11

(A low score is considered more desirable)

Table A-16. STAFF JOB SATISFACTION: The degree to which teachers have a positive effective orientation toward employment by the organization; the degree to which the teacher likes his or her job. (9 items, possible range 9-45)

SCHOOL	RANK	MEAN (AVERAGE)	STANDARD DEVIATION	NUMBER RESPONDING
A	7	28.75	7.9	8
B	4	17.9	3.6	17
C	6	23.5	5.9	13
D	5	19.1	5.0	9
E	2	15.2	2.1	13
F	3	16.7	3.2	11
G	1	14.4	4.0	11

(A low score is considered more desirable)

Table A-17. PRINCIPAL BEHAVIOR: The teacher's perception of the principal's behaviors which add to the effectiveness of the school. (84 items, possible range 84-504; a higher score on this scale is a more positive score)

SCHOOL	RANK	MEAN (AVERAGE)	STANDARD DEVIATION	NUMBER RESPONDING
A	7	172.8	37.9	8
B	6	340.8	66.6	17
C	5	348.3	88.5	13
D	3	397.1	68.9	9
E	1	475.5	36.2	13
F	4	349.5	66.8	11
G	2	447.5	47.5	11

(A high score is considered more desirable)

Before proceeding with the formal analysis it is important to note that, as with the student scale scores, most of the average scale scores of the teachers fall on the positive side of the midpoint of the possible range of scores for each scale. This means that when two scores are found to be significantly different, it does not mean one of the scores is negative and the other positive; but rather, in most cases, one score is significantly more positive than the other.

Following the procedure of analysis set forth earlier, the first analysis was the most global. All of the scale scores, for all of the teachers across all of the schools, were analyzed using MANOVA, with the decision criterion of .01. Because the Principal Behavior Scale yields scores of far greater magnitude than the other scales, it was analyzed separately. The result of the global analysis indicated that there were significant differences in scores among the schools (F(36,310)=6.34, p<.00005). Therefore, the analysis of the scores for the matched sets of schools was performed.

For Schools A and B, the global analysis of the scale scores indicated significant differences existed (F(6,18)=17.09, p<.00005) between the two schools. Further analysis identified significant differences between the scores for the two schools on **Staff Morale (p<.00005), Staff Commitment (p=.0001), and Job Satisfaction (p=.0001).** In all three cases, teachers at School B responded more positively than teachers at School A.

For Schools C and D, again the global analysis of the scale scores indicated significant differences existed (F(6,15)=12.57, p<.00005). Further analysis identified significant differences on all of the scales but two: **School Integration (p=.0004), School Goal Attainment (p=.0009), School Adaptation (p<.00005), and Staff Morale (p=.0061).** For all of these scales, teachers at School D responded more positively than teachers at School C.

The global analysis of all of the scale scores for Schools E, F and G, measured significant differences among the schools (F(12,54)=3.53, p=.0007). Further analysis showed that the difference existed on only one scale, **Staff Morale (p=.0003)**. Since three school's scores were being analyzed, Fisher's Least Significant Difference Test was used to pinpoint which school's scores were different. The average scores were as follows: E=12.8, G=17, and F=19.8. The test showed that E's score was significantly more positive than that of F, and G's score was not significantly different from either E or F.

Significant differences among Principal Behavior scores were identified, using analysis of variance (p<.00005). Follow-up contrasts showed that scores between School A and School B were significantly different (p<.00005), with School B having more positive scores than School A; were not significantly different between School C and School D; and were significantly different among Schools E, F and G (p=.0001). Further analysis, using Fisher's Least Significant Difference Test, showed that Schools E and G were not different from each other, but were significantly more positive than School F (p=.001).

Since the length of tenure of teachers among the schools varied considerably, and because a teacher's education level has been found to affect the teacher's perception of school and principal effectiveness, especially in terms of perception of need for support and whether or not the school or the principal meets the need, the research team investigated the effect of these two variables on the climate and principal behavior scales. There was not sufficient evidence to identify either variable as having affected the above results.

Analysis of School Climate Scales for Parents

The Diagnostic Assessment of School and Principal Effectiveness, Parent Version, consisting of five subscales, was administered to 632 parents of students attending the seven schools in the study. Tables A-18 through A-22 provide the names and definitions of the scales, number of items in the scale, possible range of scores, followed by the means and standard deviations broken down by schools. Not all of the parents completed every subscale, therefore the number of parents responding is recorded in the tables.

With the exception of the Principal Behavior Scale, all of the scales used the following response format: strongly agree, agree, neutral, disagree and strongly disagree. Several of the items were stated negatively, in order to prevent response set. For the analysis, these items were reverse coded, so that a score of "1" always represented the most positive response, and a score of "5" always represented the most negative response, relative to the attribute being assessed. The Principal Behavior Scale used the following response format: never, almost never, sometimes, often, almost always and always, such that a score of "1" always represented the most negative response, and a score of "6" always represented the most positive response. None of the items in this scale had to be reverse coded.

All of the scales were assessed for reliability, using Cronbach's measure of internal consistency. One item on the School Integration subscale had to be removed because of its negative effect on the overall reliability of that subscale. With the removal of that item, reliabilities ranged from alpha=.83 (moderately high) to alpha=.98 (very high), all more than adequate for assuring reliability of the following analyses.

Table A-18. MAINTENANCE: The parent's perception of the school's ability to create and maintain the school's motivational and value structure. (13 items, possible range 13-65)

SCHOOL	RANK	MEAN (AVERAGE)	STANDARD DEVIATION	NUMBER RESPONDING
A	3	27.4	7.8	25
B	6	30.9	9.9	83
C	7	33.2	8.7	32
D	5	27.9	7.6	65
E	2	23.4	7.4	86
F	4	27.6	9.5	74
G	1	21.9	5.8	137

(A low score is considered more desirable)

Table A-19. SCHOOL ADAPTATION: The parent's perception of the school's ability to deal successfully with the parents, the community and external change. (11 items, possible range 11-55)

SCHOOL	RANK	MEAN (AVERAGE)	STANDARD DEVIATION	NUMBER RESPONDING
A	5	28.0	7.4	43
B	6	28.1	6.8	108
C	7	29.1	6.7	37
D	4	27.6	5.7	65
E	2	22.1	5.9	95
F	3	24.8	6.8	98
G	1	21.4	5.7	151

(A low score is considered more desirable)

Table A-20. GOAL ATTAINMENT: The parent's perception of the school's ability to define objectives, mobilize resources and achieve desired ends. (10 items, possible range 10-50)

SCHOOL	RANK	MEAN (AVERAGE)	STANDARD DEVIATION	NUMBER RESPONDING
A	5	23.2	8.6	41
B	7	25.0	7.2	104
C	6	23.4	6.8	37
D	3	21.2	5.8	57
E	2	19.7	2.9	86
F	4	22.2	6.8	92
G	1	17.9	5.3	147

(A low score is considered more desirable)

Table A-21. SCHOOL INTEGRATION: The degree to which work conditions are adequate, the personnel policies and practices are reasonable and relationships among staff are harmonious. (4 items, possible range 4-20, note that one item was removed from this originally five-item scale)

SCHOOL	RANK	MEAN (AVERAGE)	STANDARD DEVIATION	NUMBER RESPONDING
A	5	9.1	3.8	48
B	7	9.8	3.2	117
C	4	9.1	3.1	40
D	3	8.5	2.6	72
E	2	7.4	2.3	95
F	6	9.3	3.1	101
G	1	7.1	2.1	159

(A low score is considered more desirable)

Table A-22. PRINCIPAL BEHAVIOR: The parent's perception of the degree to which the principal actively engages in specific behaviors that help create and maintain the school's motivational and value structure; deal successfully with parents, the community and external change; define objectives, mobilize resources and achieve desired ends; and, organize, coordinate and unify the various school tasks necessary for achievement. (15 items, possible range 15-90)

SCHOOL	RANK	MEAN (AVERAGE)	STANDARD DEVIATION	NUMBER RESPONDING
A	6	66.9	23.2	38
B	5	68.2	17.3	110
C	4	70.8	14.9	31
D	3	71.4	18.6	61
E	2	77.5	12.4	81
F	7	60.5	18.8	92
G	1	82.0	11.7	148

(A low score is considered more desirable)

It is important to note once again, as with the teacher and student mean scale scores, all of the parent mean scores fall on the positive side of the midpoint of the possible range of scores for each scale. This means that when scores are found to be significantly different, one score is significantly more positive than the other, not that one is negative and the other positive.

Following the procedure of analysis set forth above, the first analysis was the most global. All of the scale scores, with the exception of the Principal Behavior Scale, for all of the parents across all of the schools, were analyzed using MANOVA. The result of the analysis indicated there were significant differences in scores among the schools (F(8,522)=8.4, p<.00005). Therefore, the analysis of the scores for the matched sets of schools was performed.

For Schools A and B, and for Schools C and D, the global analyses of the scale scores did not provide evidence of significant differences within the matched pairs of schools. Therefore, the analysis was discontinued.

The global analysis of all of the scale scores for Schools E, F and G, resulted in significant differences among the schools (F(8,522)=8.4, p<.00005). Further analysis showed that the differences existed on every scale among the three schools. Fisher's Least Significant Difference Test was used to pinpoint which school's scores were different, for each scale. In every case, School F had significantly less positive scores than Schools E and G, and there was insufficient evidence to conclude that the scores for Schools E and G were different.

The analyses of the Principal Behavior Scale yielded nearly identical results. Overall there were significant differences among the scores for all the schools (F(2,318)=66.13, p<.00005). But as with the other scales, significant differences were found only among Schools E, F and G. Again, School F had significantly less positive scores than Schools E and G.

Commonalities and Differences Between Pairs of High and Low-Achieving Elementary Schools With Similar Rates of Students Receiving Free & Reduced-Price Lunch

Summary: Commonalities and Differences

	Paired Schools		
	Rural **A & B**	**Rural** **C & D**	**Non-Rural** **E, F & G**
Staff			
School Integration	O	X	O
Goal Attainment	O	X	O
School Adaptation	O	X	O
Staff Morale	X	X	X
Staff Commitment	X	O	O
Job Satisfaction	X	O	O
Students			
School Norms	O	O	X Interaction*
School Integration	O	X	X Interaction
School Adaptation	O	O	X Interaction
Maintenance	O	X	X
Academic Futility	O	O	X Interaction
Self-Concept	O	O	X
Self-Reliance	O	O	X
Motivation	O	X	X Interaction
Parents			
School Integration	O	O	X
Goal Attainment	O	O	X
School Adaptation	O	O	X
Maintenance	O	O	X
Principal Behavior	O	O	X

Differences = X **Commonalities = O**

* Interaction: School and Gender

X - Statistical Difference at $p < .01$
O - No Statistical Difference at $p < .01$

Appendix B

Listing of Questions for each Scale

The individual questions for each scale are provided in Appendix B. For each question and for each pair of schools, SD or ND indicates a significant difference or no difference between the average score of two schools on the question.

STUDENTS

Comparison of Paired Schools On Individual Questions

Comparisons
Pair 1: School A and School B
Pair 2: School C and School D
Pair 3: School E and School F

I. Scale: SCHOOL NORMS Students' View of the School

The students' perception of the school's achievement and work standards; the extent to which students believe that the school expects a high performance level.

1	2	3	Q	
ND	ND	ND	1.	I am expected to work hard in this school.
ND	ND	ND	4.	Students are expected to work hard in this school.
ND	ND	ND	11.	This school expects you to try very hard.
ND	ND	ND	16.	Teachers in this school do not expect me to work very hard.
ND	ND	ND	32.	This school expects me to work hard.
ND	ND	**SD**	38.	Students are not expected to learn very much in this school.
ND	**SD**	ND	42.	I try hard to get good grades on tests.
SD	ND	ND	17.	Students in this school work hard to do well on school assignments.
SD	ND	ND	29.	Students in this school feel it is important to do well in school.

II. Scale: SCHOOL ADAPTATION Students' View of the School

The students' perception of the school's ability to deal successfully with the parents, community, and external change.

1	2	3	Q	
ND	ND	ND	63.	I can use what I learn in school outside of school.
ND	ND	ND	77.	My parents do not support my school very much.
ND	ND	ND	85.	This school encourages students to try new things in class.
SD	ND	ND	80.	My parents think the school is doing a good job.
ND	**SD**	ND	65.	Teachers at my school like to try new things.
ND	ND	**SD**	68.	Teachers in my school use up-to-date teaching methods and materials.

SD: Significant difference between average scores of paired schools, analysis of variance, contrast of paired coefficients at $p < .01$. ND: No difference at $p < .01$.

III. Scale: SCHOOL INTEGRATION Students' View of the School

The students' perception of the ability of the school to organize, coordinate, and unify the various school tasks necessary for achievement.

1	**2**	**3**	**Q**	
ND	ND	ND	67.	The teachers in my school respect each other and work well together.
ND	ND	ND	70.	It is not clear to me what I should be learning at this school.
ND	ND	ND	82.	I almost always know what is going on in my school.
ND	ND	ND	76.	Teachers and students work together in this school.
SD	ND	ND	59.	Arguments between students do not happen very often at this school.
SD	ND	ND	62.	I have a pretty good understanding of how my school works.
SD	**SD**	ND	73.	There are often arguments between students at this school.
SD	**SD**	ND	79.	Teachers in my school do not have a great deal of confidence in other teachers' abilities.
SD	**SD**	ND	84.	Students in this school respect the teachers.
ND	**SD**	**SD**	60.	Teachers and parents work together in my school.

IV. Scale: SCHOOL MAINTENANCE Students' View of the School (School Motivational and Value Structure)

The students' perception of the school's ability to create and maintain the school's motivational and value structure. For an organization to function effectively over an extended period there must be a certain sense of client and employee loyalty to the organization, its goals, and culture.

1	**2**	**3**	**Q**	
ND	ND	ND	69.	Students in this school are highly respected.
ND	ND	ND	78.	I don't like being in this school.
ND	ND	ND	81.	Students like to be in this school.
ND	ND	ND	83.	When I am with friends, I like to talk about events related to my school.
ND	ND	ND	88.	I enjoy my school work very much.
ND	ND	ND	89.	I have a lot of very good friends at my school.
SD	ND	ND	61.	I would quit school if I could.
ND	**SD**	ND	66.	Students learn more at other schools.
ND	**SD**	ND	75.	Students in this school trust each other.
SD	**SD**	ND	72.	Students at this school are very proud of the school.

SD: Significant difference between average scores of paired schools, analysis of variance, contrast of paired coefficients at $p < .01$. ND: No difference at $p < .01$.

Comparison of Paired Schools On Individual Questions

Comparisons
Pair 1: School A and School B
Pair 2: School C and School D
Pair 3: School E and School F

V. Scale: ACADEMIC FUTILITY Student's View of Himself or Herself

The students' perception of the relationships among effort in school, subsequent rewards, and future success in school. Students who drop out of school are typical examples of individuals who do not perceive the current effort to be linked to future rewards.

1	2	3	Q	
ND	ND	ND	8.	Getting good grades is hard for me no matter how much I try.
ND	ND	ND	18.	I will do well in school next year.
ND	ND	ND	19.	School is a waste of time for me.
ND	ND	ND	39.	Hard work will get you good grades in this school.
ND	ND	ND	40.	The schoolwork I am doing now will help me in the future.
ND	ND	ND	45.	I expect to do well in school.
ND	ND	ND	74.	What I study in school will be important to me in the future.
ND	**SD**	ND	2.	Sometimes, no matter how hard I work in school, I still get bad grades.
ND	**SD**	ND	47.	Students in this school will do well in the future.
SD	ND	ND	52.	Students in this school want to do well.

VI. Scale: STUDENT SELF-CONCEPT Student's View of Himself or Herself

A student's perception of his/her ability to master school work, establish social friendships, and gain acceptance within the school.

1	2	3	Q	
ND	ND	ND	3.	I am not liked very well in school.
ND	ND	ND	5.	I can do a good job in school.
ND	ND	ND	20.	I have confidence in myself.
ND	ND	ND	33.	I have few friends at school.
ND	ND	ND	34.	I am proud to go to this school.
ND	ND	ND	48.	Other students like my ideas.
ND	ND	ND	50.	I learn things very easily in school.
ND	ND	ND	56.	Most of the things I do in school turn out to be wrong.
ND	ND	ND	57.	I am proud of the work I do in school.
ND	ND	**SD**	25.	My friends like school.
ND	ND	**SD**	54.	I feel good about my schoolwork.
SD	ND	ND	53.	I like to speak in class.
SD	ND	ND	35.	Students in my class are friendly.
SD	ND	ND	49.	When I get my report card, I like to show it to others.

SD: Significant difference between average scores of paired schools, analysis of variance, contrast of paired coefficients at $p < .01$. ND: No difference at $p < .01$.

VII. Scale: STUDENT SELF-RELIANCE Student's View of Himself or Herself

A student's perception of his/her ability and desire to function independently within the school context.

1	2	3	Q	
ND	ND	ND	12.	I can learn without help from the teachers.
ND	ND	ND	22.	I like to solve problems on my own.
ND	ND	ND	28.	Most of the time I can learn the best on my own.
ND	ND	ND	36.	I depend on myself to figure out hard problems.
ND	ND	ND	55.	I am not good at solving problems on my own.
ND	ND	ND	86.	I like to solve problems on my own without help from others.*
ND	ND	**SD**	6.	I like to solve problems on my own without help from others.*
ND	ND	**SD**	10.	I am pretty good in figuring out how to work new problems.
ND	**SD**	**SD**	43.	There are many things I can do very well on my own.
ND	**SD**	ND	37.	I depend on others to help me in school.

VIII. Scale: STUDENT MOTIVATION Student's View of Himself or Herself

A student's motivation to attend school and the importance he/she attaches to school.

1	2	3	Q	
ND	ND	ND	13.	I do not like to go to school.
ND	**SD**	ND	23.	There are a lot of places I would rather be than in school.
ND	ND	**SD**	14.	I would go to school in the summer if I could.
ND	ND	**SD**	15.	School is an interesting place and I enjoy it.
ND	ND	**SD**	24.	School is important to me.
ND	ND	**SD**	26.	School is very enjoyable to me.
ND	ND	**SD**	38.	The things that I study in school are not very interesting.
ND	ND	**SD**	41.	I am eager to go to school.
ND	**SD**	**SD**	44.	My friends like to go to this school.

* Questions 6 and 86 were duplicated in the original student questionnaire.

SD: Significant difference between average scores of paired schools, analysis of variance, contrast of paired coefficients at $p < .01$. ND: No difference at $p < .01$.

STAFF

Comparison of Paired Schools On Individual Questions

Comparisons
Pair 1: School A and School B
Pair 2: School C and School D
Pair 3: School E and School F

I. Scale: SCHOOL INTEGRATION Staff's View of the School

The staff's perception of the ability of the school to organize, coordinate, and unify the social entity into a single unit; the ability of the school to unify the various school tasks necessary for achievement.

1	**2**	**3**	**Q**	
ND	ND	ND	12.	I have a pretty good idea how the various departments or grade levels within this school function.
ND	ND	ND	44.	In this school, the workload among teachers is pretty evenly distributed.
ND	ND	ND	17.	It is not clear to me what each department or level is supposed to do.
ND	**SD**	ND	2.	Teachers at this school do not have a great deal of confidence in each other's abilities.
ND	**SD**	ND	8.	Teachers in this school have respect for the professional competence of other teachers, departments, or levels.
ND	**SD**	ND	4.	As students move from one grade level to the next or from one course to another, teachers generally can be assured that the students were soundly prepared in the previous course/grade.
ND	**SD**	ND	24.	Before a decision which would effect everyone is made in my school, there is a good deal of communication among grade levels or departments.
ND	**SD**	ND	29.	The staff in this school respect each other and work well together.
ND	**SD**	ND	32.	There are often conflicts between teachers in my school.
ND	**SD**	ND	41.	Conflict between staff members in this school is rare.
ND	**SD**	ND	55.	Teachers is this school do not hold each other in high regard.
ND	**SD**	ND	67.	I feel that others in my school value my ideas and suggestions.
ND	**SD**	ND	70.	There is a systematic effort in this school for teachers to share new curriculum material.
ND	**SD**	**SD**	21.	Before a decision is made in this school, there is a good deal of communication among teachers.
SD	**SD**	ND	71.	The climate at this school is poor.
SD	**SD**	**SD**	69.	Administrators and teachers in this school work together toward making the school run effectively.
SD	**SD**	**SD**	74.	The communications in this school are good.

SD: Significant difference between average scores of paired schools, analysis of variance, contrast of paired coefficients at $p < .01$. ND: No difference at $p < .01$

II. Scale: GOAL ATTAINMENT **Staff's View of the School**

The staff's perception of the ability of the school to define objectives, mobilize resources and achieve these desired ends (academic and social).

1	2	3	Q	
ND	ND	ND	6.	Student achievement is rewarded in this school.
ND	ND	ND	81.	This school is especially good in efficiently organizing students into groups that maximize learning.
ND	ND	ND	84.	The goals of this school are not clearly spelled out and communicated to all parties.
ND	ND	**SD**	16.	The development of student self-confidence is stressed at this school.
ND	**SD**	ND	9.	Student creativity is encouraged and rewarded in this school.
ND	**SD**	ND	20.	The development of individual student self-concept is not emphasized in this school.
ND	**SD**	ND	28.	The quality of teaching in this school is very high.
ND	**SD**	ND	58.	This school has a clear mission.
ND	**SD**	ND	64.	This school is efficient in how it uses materials and how it organizes the staff.
ND	**SD**	ND	86.	I sometimes am not sure what this school expects of me — one time they say one thing, the next time a different goal is emphasized.
ND	**SD**	ND	25.	Teachers in this school are trying hard to promote student achievement.
SD	ND	ND	48.	In this school, everything is arranged to facilitate the achievement of our goals.
SD	ND	**SD**	52.	Each year in this school we make an effort to identify problems and set school-wide improvement goals.
SD	**SD**	ND	36.	Productivity is high in this school.
SD	**SD**	ND	46.	In this school, all students are treated with respect — even those from poor backgrounds or those of limited intellectual ability.

SD: Significant difference between average scores of paired schools, analysis of variance, contrast of paired coefficients at $p < .01$. ND: No difference at $p < .01$.

III. Scale: SCHOOL ADAPTATION **Staff's View of the School**

The staff's perception of the school's ability to successfully control, transform, or adjust to the external environment through accommodation or change; the teachers' perception of the school's ability to deal successfully with the parents, the community, and external change.

1	2	3	Q	
ND	ND	ND	11.	In spite of limited financial resources, this school is able to get money and equipment we need to conduct an effective educational program.
ND	ND	ND	54.	This school seems especially effective in adopting new and innovative instructional techniques.
ND	ND	ND	83.	This school is especially good at anticipating problems with parents or students and preventing them before they become major problems.
ND	ND	ND	85.	The staff at this school are well informed about educational issues that could affect their work.
ND	ND	ND	61.	This school is especially effective in seeking out new programs or practices in response to changes in the community or the pedagogical knowledge.
ND	**SD**	ND	66.	This school seems to be more innovative than other schools.
ND	**SD**	ND	51.	Teachers at this school respect parents and attempt to work with them whenever possible.
ND	**SD**	ND	68.	Few teachers at this school are actively experimenting with new teaching methods or curriculum material.
ND	**SD**	ND	73.	The staff of this school can easily handle unusual or non-routine problems that may come up.
ND	**SD**	ND	76.	The staff of this school is very supportive of each other in their attempts to try new techniques or methods.
ND	**SD**	ND	77.	The staff at this school is very interested in trying new teaching techniques or curriculum material.
ND	**SD**	ND	79.	The staff at this school is not very interested in promoting their own professional development.
ND	**SD**	ND	82.	Supplies and equipment are rarely available when needed.
ND	**SD**	ND	87.	When changes are made at this school, the faculty adjusts very slowly.
ND	ND	**SD**	80.	The staff of this school engages in peer observations and peer study groups to improve their own instruction and try new techniques.
SD	**SD**	ND	15.	This school seems to be more effective than other schools in our district in obtaining adequate resources to support the educational program.
SD	**SD**	ND	39.	Our school is not very effective in gaining community support for our programs.
SD	**SD**	ND	57.	This school uses standard curriculum material and does not generally seek out new or updated material on a systematic basis.
ND	**SD**	**SD**	27.	This school staff works together to jointly write grants or requests to secure resources from outside agencies.
ND	**SD**	**SD**	45.	This school has activities to help us keep in touch with the wants and desires of the community.

SD: Significant difference between average scores of paired schools, analysis of variance, contrast of paired coefficients at $p < .01$. ND: No difference at $p < .01$.

Comparison of Paired Schools On Individual Questions

Comparisons
Pair 1: School A and School B
Pair 2: School C and School D
Pair 3: School E and School F

IV. Scale: STAFF MORALE Staff Member's View of Himself or Herself

The degree to which the teacher feels the work conditions and services are adequate, the personnel policies and practices are reasonable, and relationships among staff are harmonious.

1	2	3	Q	
ND	ND	ND	23.	Administrative policies are available to the faculty in printed form.
ND	ND	ND	40.	The social contact between students and faculty is friendly.
ND	ND	ND	78.	I have a lot of very good friends at this school.
ND	**SD**	ND	59.	Faculty members are friendly to one another.
SD	ND	ND	7.	The workload is adequately balanced among the faculty members of this school.
SD	ND	**SD**	1.	The principal is concerned with faculty working conditions.
SD	ND	**SD**	35.	There are sufficient social activities for the faculty.
SD	ND	**SD**	63.	The building administrators encourage suggestions from the faculty.
SD	**SD**	**SD**	18.	There are open lines of communication between faculty and the building administrators.
SD	**SD**	**SD**	31.	There is general faculty confidence in the building administrators.

V. Scale: STAFF COMMITMENT Staff Member's View of Himself or Herself

The staff's acceptance of the organization's values, willingness to exert effort on behalf of the organization, and the desire to remain an employee of the organization.

1	2	3	Q	
ND	ND	ND	42.	Teachers at this school are not very loyal to the school and staff.
ND	ND	ND	49.	Most of my interests lie outside my job at school.
ND	ND	ND	62.	I am not satisfied with the goals and objectives emphasized by this school.
SD	ND	ND	37.	If offered a better salary I would move to another school.
SD	ND	ND	72.	I tend to identify with this school and strongly support it when it is attacked.
ND	**SD**	ND	10.	I am not proud of this school.
ND	**SD**	ND	43.	I believe in the goals and objectives of this school.
SD	**SD**	ND	26.	I would leave this school for any other.
SD	**SD**	ND	33.	I tell my friends that I will stay in this school for many years to come.
SD	**SD**	ND	53.	Unlike this school, I would like to work in a school that holds the same values as I do.
SD	**SD**	ND	60.	The values of this school are inconsistent with my own values.
SD	**SD**	**SD**	19.	This school is an excellent organization.

SD: Significant difference between average scores of paired schools, analysis of variance, contrast of paired coefficients at $p < .01$. ND: No difference at $p < .01$

VI. Scale: STAFF JOB SATISFACTION - Staff Member's View of Himself/Herself

The degree to which teachers have a positive effective orientation toward employment by the organization; the degree to which the teacher likes his or her job.

1	2	3	Q	
ND	ND	ND	30.	I am not satisfied with the amount of money I make.
ND	ND	ND	34.	I am satisfied with the fringe benefits in this school district.
SD	ND	ND	14.	This job gives me professional satisfaction.
SD	ND	ND	22.	I am satisfied with the amount of work I am expected to do.
SD	**SD**	ND	38.	I am satisfied with the trust I have in building administrators.
SD	**SD**	ND	62.	I am not satisfied with the goals and objectives emphasized by this school.
SD	**SD**	ND	75.	I enjoy my school work very much.
SD	**SD**	**SD**	47.	I am satisfied with the professional competence and leadership of my building administrator.
SD	**SD**	**SD**	56.	I am satisfied with the opportunities provided to discuss problems with building administrators.

PARENTS

I. Scale: MAINTENANCE Parents' Perception

The parents' perception of the school's ability to create and maintain the school's motivational and value structure.

1	2	3	Q	
ND	ND	ND	17.	Students at my child's school trust the teachers.
ND	ND	ND	25.	The staff at my child's school really care about him/her.
ND	ND	ND	27.	I know many of the staff and parents at my child's school.
ND	ND	**SD**	4.	If I could, I would send my child to another school.
ND	**SD**	ND	11.	Teachers at my child's school are not very loyal to the school and staff.
ND	ND	**SD**	15.	Parents at my child's school are very loyal to the school and staff.
SD	ND	ND	16.	Most of my child's interests lie outside the school.
ND	ND	**SD**	26.	I tend to identify with my child's school and strongly support it when it is attacked.
ND	ND	**SD**	28.	Parents feel pride in my child's school and in its students.
ND	**SD**	**SD**	2.	I am satisfied with my child's school.
ND	**SD**	**SD**	7.	My child's school is highly respected.
ND	**SD**	**SD**	24.	My child's school is not a very good school.
ND	**SD**	**SD**	29.	There is a "we" spirit in my child's school.

SD: Significant difference between average scores of paired schools, analysis of variance, contrast of paired coefficients at $p < .01$. ND: No difference at $p < .01$.

Comparison of Paired Schools On Individual Questions

Comparisons
Pair 1: School A and School B
Pair 2: School C and School D
Pair 3: School E and School F

II. Scale: SCHOOL ADAPTATION Parents' Perception

The parents' perception of the school's ability to deal successfully with the parents, the community and external change.

1	2	3	Q	
ND	ND	ND	8.	In spite of limited financial resources, my child's school is able to get the money and equipment needed to conduct an effective educational program.
ND	ND	ND	3.	My child's school rarely knows about community problems which might affect the school.
ND	ND	ND	6.	The curriculum in my child's school accurately reflects the wishes of the community.
ND	ND	ND	22.	My child's school seems especially effective in adopting new and innovative instructional techniques.
ND	ND	ND	23.	The staff at my child's school are not well informed about educational issues that could affect their work.
ND	ND	ND	33.	My child's school seems to be very innovative in comparison to other schools.
ND	ND	**SD**	13.	My child's school is effective in gaining community support for its programs.
ND	ND	**SD**	14.	My child's school has activities to help keep it in touch with the wants and desires of the community.
ND	ND	**SD**	21.	Teachers at my child's school respect parents and attempt to work with them whenever possible.
ND	ND	**SD**	30.	My child's school is effective in handling unexpected situations.
ND	**SD**	**SD**	10.	My child's school seems to be less effective than the other schools in our district in obtaining adequate resources to support the educational program.

SD: Significant difference between average scores of paired schools, analysis of variance, contrast of paired coefficients at $p < .01$. ND: No difference at $p < .01$

Comparison of Paired Schools On Individual Questions

Comparisons
Pair 1: School A and School B
Pair 2: School C and School D
Pair 3: School E and School F

III. GOAL ATTAINMENT Parents' Perception

The parents' perception of the school's ability to define objectives, mobilize resources and achieve desired ends.

1	2	3	Q	
ND	ND	ND	18.	The quality of teaching my child receives is high.
ND	ND	ND	39.	Student progress is accurately monitored at my child's school.
ND	ND	**SD**	1.	Student achievement is rewarded in my child's school.
ND	ND	**SD**	5.	Student creativity is encouraged and rewarded in my child's school.
ND	ND	**SD**	9.	The development of student self-confidence is stressed at my child's school.
ND	ND	**SD**	12.	Teachers at my child's school are trying very hard to promote student achievement.
ND	ND	**SD**	19.	In my child's school, all students are treated with respect — even those from poor backgrounds or those of limited intellectual ability.
ND	**SD**	ND	35.	My child's school has high expectations.
ND	**SD**	**SD**	20.	My child's school has a clear mission.
SD	ND	**SD**	37.	Interruptions of school are limited at my child's school.

IV. Scale: SCHOOL INTEGRATION Parents' Perception

The degree to which work conditions and services are adequate, the personnel policies and practices are reasonable, and staff relationships among staff are harmonious.

1	2	3	Q	
ND	ND	ND	32.	The workload is adequately balanced among the faculty members of this school.
ND	ND	**SD**	31.	The principal is concerned with faculty working conditions.
ND	ND	**SD**	36.	There are open lines of communication between faculty and the building administrators.
ND	**SD**	**SD**	38.	Administrative policies are available to the faculty in printed form.
ND	**SD**	**SD**	40.	There is general faculty confidence in the building administrators.

SD: Significant difference between average scores of paired schools, analysis of variance, contrast of paired coefficients at $p < .01$. ND: No difference at $p < .01$.

V. Scale: PRINCIPAL BEHAVIOR Parents' Perception

The parents' perception of the degree to which the principal activity engages in specific behaviors that helps create and maintain the school's motivational and value structure; deal successfully with the parents, the community, and external change; define objectives, mobilize resources, and achieve desired ends; and, organize, coordinate, and unify the various school tasks necessary for achievement.

1	2	3	Q	
SD	ND	**SD**	42.	Show concern about students.
SD	ND	**SD**	47.	Represent the school in a positive manner.
ND	ND	**SD**	49.	Involve parents in school activities.
ND	ND	**SD**	51.	Maintain a good public relations program.
ND	ND	**SD**	53.	Trust and support others.
ND	ND	**SD**	41.	Understand the desires and needs of parents.
ND	ND	**SD**	43.	Demonstrate effective interpersonal skills.
ND	ND	**SD**	44.	Promote discussion of issues, problems, and recommendations pertaining to the school.
ND	ND	**SD**	45.	Write concisely and correctly when communicating with parents.
ND	ND	**SD**	46.	Explain the school's mission to the community and solicit support.
ND	ND	**SD**	48.	Set and communicate school goals to parents.
ND	ND	**SD**	50.	Support and develop professional standards.
ND	ND	**SD**	52.	Establish effective parent-school organizations.
ND	ND	**SD**	54.	Share decision making with parents when appropriate.
ND	ND	**SD**	55.	Promote school spirit and morale.

SD: Significant difference between average scores of paired schools, analysis of variance, contrast of paired coefficients at $p < .01$. ND: No difference at $p < .01$.

Appendix C

Table C-1. Parents - All Schools - "Always + Usually Agree"
Commonalities Between Paired Schools. Parents' view.
Paired Schools: (A & B), (C & D) and (E, F & G).

Commonalities Between Paired Schools: Parents' View	A	B	C	D	E	F	G	All
	R	R	R	R	N	N	N	
In spite of limited financial resources, my child's school is able to get the money and equipment needed to conduct an effective educational program.	57%	59%	50%	55%	85%	85%	81%	72%
The quality of teaching my child receives is high.	72%	63%	73%	81%	86%	77%	92%	79%
Student progress is accurately monitored at my child's school.	62%	72%	72%	76%	79%	73%	88%	77%
The workload is adequately balanced among the faculty members of this school.	67%	71%	74%	80%	86%	85%	96%	83%
Teachers at my child's school are not very loyal to the school and staff.	13%	18%	30%	12%	3%	6%	5%	10%
My child's school is not a very good school.	24%	11%	33%	1%	3%	7%	.6%	8%
The staff at my child's school really care about him/her.	75%	68%	62%	73%	86%	72%	90%	78%
I know many of the staff and parents at my child's school.	71%	78%	78%	75%	87%	83%	80%	80%
Number of Responding Parents	48	117	40	72	95	101	159	632

R = Rural N=Non-rural

Table C-2. Parents - All Schools - "Always + Usually Agree"
Commonalities and Differences between paired schools as viewed by the parents.
Paired Schools: (A & B), (C & D) and (E, F & G).

Commonalities and Differences *Between Paired Schools: Parents' View	**A**	**B**	**C**	**D**	**E**	**F**	**G**	**All**
	R	**R**	**R**	**R**	**N**	**N**	**N**	
My child's school has high expectations.	49%	52%	* 54%	* 75%	88%	93%	90%	76%
My child's school has a clear mission.	53%	51%	55%	65%	* 87%	* 62%	87%	70%
Student achievement is rewarded in my child's school.	85%	78%	75%	90%	* 91%	* 78%	90%	85%
Student creativity is encouraged and rewarded in my child's school.	70%	62%	73%	85%	* 93%	* 74%	87%	79%
The development of student self-confidence is stressed in my child's school.	58%	56%	50%	70%	* 81%	* 65%	85%	70%
Teachers at my child's school are trying very hard to promote student achievement.	75%	75%	83%	90%	* 92%	* 81%	94%	86%
In my child's school, all students are treated with respect - even those from poor backgrounds or those of limited intellectual ability.	57%	61%	60%	70%	* 81%	* 48%	82%	68%
Number of Responding Parents	48	117	40	72	95	101	159	632

* Difference between Paired Schools at p < .01.

R = Rural N=Non-rural

Table C-3. Students' View of the School and of Themselves
Percentage of Responding Students to "Always + Usually Agree"
Paired Schools: (A & B), (C & D), (E, F & G)

Students	**A**	**B**	**C**	**D**	**E**	**F**	**G**	**All**
	R	**R**	**R**	**R**	**N**	**N**	**N**	
Students in this school are highly respected.	65%	81%	63%	81%	70%	62%	85%	73%
Students like to be in this school.	62%	80%	55%	75%	68%	73%	77%	72%
Students learn more at other schools.	28%	26%	32%	16%	10%	14%	11%	17%
Students at this school are very proud of the school.	62%	80%	37%	79%	79%	77%	83%	75%
I enjoy my school work very much.	62%	69%	58%	59%	43%	53%	70%	59%
I would quit school if I could.	30%	14%	34%	24%	13%	8%	7%	15%
Students in this school respect the teachers.	65%	83%	50%	80%	73%	74%	92%	77%
School is a waste of time for me.	23%	17%	23%	21%	13%	14%	6%	14%
Students in this school want to do well.	80%	91%	58%	79%	80%	87%	93%	84%
This school expects me to work hard.	93%	94%	90%	91%	91%	98%	98%	94%
School is an interesting place and I enjoy it.	63%	63%	45%	66%	34%	51%	75%	63%
Number of Responding Students	80	80	38	76	120	139	137	670

R = Rural N = Nonrural

Table C-4. Teachers' View of the School
Percentage of Responding Teachers to "Strongly Agree + Agree"
Paired Schools: (A & B), (C & D), (E, F & G)

Teachers	**A**	**B**	**C**	**D**	**E**	**F**	**G**	**All**
	R	**R**	**R**	**R**	**N**	**N**	**N**	
Students were soundly prepared in the previous grade.	63%	77%	23%	89%	92%	91%	100%	76%
The staff work well together.	63%	88%	31%	89%	100%	100%	91%	81%
The climate at this school is poor.	63%	0%	54%	0%	0%	9%	0%	16%
The communications in this school are good.	13%	88%	31%	100%	100%	82%	91%	74%
Administrators and teachers work together.	0%	82%	31%	89%	100%	82%	100%	72%
This school seems to be more effective than other schools in our district in obtaining adequate resources.	50%	6%	39%	0%	0%	9%	0%	13%
This school is an excellent organization.	13%	88%	31%	89%	100%	82%	100%	74%
I would leave this school for any other.	75%	0%	31%	0%	8%	9%	0%	15%
I tend to identify with this school and strongly support it when it is attacked.	38%	82%	46%	78%	100%	91%	100%	78%
I enjoy my school work very much.	63%	100	62%	89%	92%	91%	91%	85%
I am satisfied with the amount of money I make.	38%	53%	46%	78%	85%	55%	64%	60%
Number of Responding Teachers	8	17	13	9	13	11	11	82

R = Rural N = Nonrural

West Virginia Education Fund
Organization Background

The West Virginia Education Fund is distinguished as the nation's first statewide education fund, founded in 1983 as a catalyst for private sector involvement in public school improvement. Its programs share a single focus: to assure that quality public school education is available to all children in West Virginia.

The West Virginia Education Fund accomplishes its mission by promoting cooperation and communication between the public schools and private sector, recognizing and encouraging excellence and innovation in teaching and the learning process, providing students and teachers with a realistic picture of the world of work and better understanding of the preparation needed for employment and providing understanding and data regarding critical education issues in West Virginia.

Because of its widely diverse and successful programs, the Education Fund is uniquely positioned to provide leadership in planning and carrying out systemic education reform initiatives. **The West Virginia Business and Education Alliance**, an affiliate of the national Business Roundtable, has provided training, networking, recognition and awards for Local School Improvement Councils. Additionally, the Alliance funded a study which examined West Virginia's progress toward the state education goals. The Alliance is currently studying what our state's employers and institutions of higher education believe high school graduates should know and be able to do when they graduate from high school in order to make a successful transition to either post-graduation option.

Over 90 percent of the schools in the state are currently linked with business or community organizations as partners. The **Partnerships in Education Program** was initiated by the Fund and is nurtured on a continuing basis through training, shared examples and guidance. The goal of the program is to develop a mutually beneficial relationship and develop partnership goals set collectively by the business and school.

The **Education Policy Research Institute** at the Fund provides in-depth data on public education issues and is viewed as an unbiased, reliable source of information to be used in planning and decision making. The program officer has made presentations to legislative leadership and to legislative education oversight committees, conducted training sessions for county boards of education and spoken to many civic organizations on published studies. Research projects to date have investigated equitable school funding and effective elementary schools.

Read Aloud West Virginia, a volunteer program designed to develop lifetime readers by instilling a love of reading in children, is establishing county organizations to support Read Aloud activities in each of the 55 counties. Training and materials are provided for members of these county groups.

Teacher confidence in the Education Fund has been developed over the years through the **Minigrants for Classroom Projects** Program. Minigrants are small, competitive grants awarded to teachers in support of their innovative projects that directly involve and affect students and for valuable, often long-cherished ideas for which no public funds are available. "Day-On-Campus" funding, for elementary and middle school student tours of college campuses, has contributed to awareness of higher education opportunities in West Virginia. Other elements of the **College Bound Program** include a scholarship directory and a computerized college catalog for students. The emphasis of this program is to increase the level of college attendance in West Virginia.

The Education Fund's efforts are financed through contributions from business and industry, individuals and foundations.

West Virginia Education Fund

The Nation's First Statewide Education Fund

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